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October 29, 2001

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**BY HAND DELIVERY**

Mary L. Cottrell, Secretary  
Department of Telecommunications  
and Energy  
One South Station  
Boston, MA 02110

RE: Service Quality Plan Filing, D.T.E. 99-84

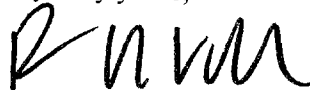
Dear Ms. Cottrell:

Enclosed herewith, pursuant to the Orders of the Department of Telecommunications and Energy ("Department") in this docket, please find the original and nine (9) copies of the following, submitted on behalf of Fitchburg Gas and Electric Light Company:

- (1) Testimony of Todd M. Bohan, Ph.D. (Exh. FGE-TMB-1 );
- (2) FG&E's Service Quality Plan, or SQP (Exh. FGE-TMB-2);
- (3) FG&E's SQP Redlined to Department's Guidelines (Exh. FGE-TMB-3);
- (4) FG&E's (Service Quality Benchmarking Data) (Exh. FGE-TMB-4);
- (5) Description of the Data Collection Process for Service Quality ("SQ") Measures (Exh. FGE-TMB-5);
- (6) Customer Surveys (Exh. FGE-TMB-6); and
- (7) Supporting Workpapers. (Exh. FGE-TMB-7).

Please do not hesitate to telephone me with any questions.

Very truly yours,



Patricia M. French

Enclosures

cc: Caroline O'Brien, D.T.E., Hearing Officer  
George Yiankos, Director, Gas Division  
Kevin Brannelly, Director  
Service List

CERTIFICATION

I, Patricia M. French, certify that I have served a copy of the within on each of the individuals on the service list on file with the Secretary of the Department of Telecommunications and Energy and in accordance with the Memorandum of the Hearing Officer, in D.T.E. 99-84.

Dated at Boston, this 29th day of October, 2001.

  
\_\_\_\_\_  
Patricia M. French

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## **ATTACHMENT 1**

## Fitchburg Gas and Electric Light Company

Testimony of  
Todd M. Bohan, Ph.D.

October 29, 2001

Massachusetts Department of Telecommunications and Energy

D.T.E. 99-84

1    **I.     INTRODUCTION**

2    Q.     Please state your name, your position, and business address.

3    A.     My name is Todd M. Bohan. My business address is 6 Liberty Lane West,  
4           Hampton, New Hampshire.

5    Q.     By whom are you employed and in what position?

6    A.     I am employed by Unitil Service Corp. ("Service Corp.") as a Project Leader in  
7           the Regulatory Services Department. Service Corp. provides various professional  
8           services, including financial, regulatory, management, engineering and  
9           administrative services to the Unitil Corporation utility subsidiaries, including  
10          Fitchburg Gas and Electric Light Company ("FG&E").

11   Q.     What are your responsibilities as a Project Leader in the Regulatory Services  
12          Department for Service Corp.?

13   A.     My primary responsibilities, as relevant here, are to provide investigative and  
14          analytical support on a broad range of regulatory initiatives and rate-related  
15          activities. In addition, I am responsible for performing and directing the  
16          evaluation of individual customer inquiries related to pricing matters.

17   Q.     How long have you been employed by Service Corp.?

1 A. I have been employed by Service Corp. since November 1998. Before my current  
2 position, I was a Regulatory Analyst with Service Corp., providing regulatory  
3 assistance to each of the Unitil utility subsidiaries.

4 Q. Please describe your educational background.

5 A. I graduated *magna cum laude* from Saint Anselm College, Manchester, New  
6 Hampshire in 1987 with a Bachelors in Financial Economics. I earned a Masters  
7 in Economics from Clark University, Worcester, Massachusetts in May 1990. In  
8 September 1995, I earned a Ph.D. in Economics from Clark University. In  
9 addition to my formal education, I have attended various industry seminars and  
10 courses, including the EEI Power System Planning & Operations School, the  
11 NARUC Annual Regulatory Studies Program, and the Infocast Performance-  
12 Based Ratemaking Conference.

13 Q. Were you involved with the regulation of gas or electric utilities before joining  
14 Service Corp.?

15 A. Yes, I was.

16 Q. Please explain.

17 A. Before joining Service Corp., I worked for Bay State Gas Company ("BSG") as a  
18 Rate Analyst, developing Cost of Gas Adjustment filings for the BSG subsidiary,  
19 Northern Utilities, Inc. Prior to working for BSG, I was employed as a Utility

1 Analyst and an Economist in the Economics Department of the New Hampshire  
2 Public Utilities Commission ("NHPUC"). As part of the NHPUC staff, I was  
3 responsible for advising the Commission on economic and technical issues related  
4 to a broad range of regulatory, economic and financial matters in the gas and  
5 electric industries.

6 Q. Do you have any other experience relevant to your testimony today?

7 A. Yes. Since 1992, I have served on the adjunct faculties, teaching economics, at  
8 the University of New Hampshire at Manchester and at Southern New Hampshire  
9 University. In addition, I have instructed economics courses at other colleges and  
10 universities around New England over the past 10 years.

11 Q. Have you previously testified before the Department of Telecommunications and  
12 Energy ("Department") or any other state or federal regulatory agency?

13 A. Yes. As part of the NHPUC staff, I testified before the NHPUC on a number of  
14 regulatory issues.

15 **II. FG&E'S SERVICE QUALITY PLAN FILING**

16 Q. Please describe the filing.

17 A. FG&E's Service Quality Plan ("SQP") filing is comprised of Exh. FGE-TMB-1,  
18 this testimony which has been designed to introduce the SQP; Exh. FGE-TMB-2,  
19 the SQP; Exh. FGE-TMB-3, the SQP in Revision-Marking Mode; Exh. FGE-

1 TMB-4, Appendix A (Service Quality Benchmarking Data); Exh.FGE-TMB-5, A  
2 Description of the Data Collection Process for Service Quality ("SQ") Measures;  
3 Exh. FGE-TMB-6, the Customer Surveys; and, Exh. FGE-TMB-7, Supporting  
4 Workpapers.

5 Q. Will you describe each element of the SQP?

6 A. Yes, I will. The SQP itself is Exh. FGE-TMB-2. It is based upon the Guidelines  
7 issued by the Department in its June 29, 2001 Order in D.T.E. 99-84. The  
8 Department, in a memorandum from the hearing officer dated October 22, 2001,  
9 requested that the filing identify each area where the SQP deviated from the  
10 Guidelines issued by the Department through a redline/strike out version of the  
11 SQ Plan comparing the actual plan to the Guidelines. Therefore, given that the  
12 Department intended to insure that the Guidelines formed the foundation for its  
13 Plan, FG&E used the Guidelines themselves as a basis for the language in its  
14 SQP.

15 Q. Has FG&E provided a copy of its SQP redlined to the Department's Guidelines?

16 A. Yes, it has. Its redlined SQP is provided as Exh. FGE-TMB-3.

17 Q. Has FG&E collected data to support the measures it proposes as part of the SQP?

18 A. Yes, it has. In Exh. FGE-TMB-4, FG&E submits an Appendix to the SQP that  
19 provides all the historical benchmarking data in a summary format.



1 Q. Has FG&E described for the Department the process undertaken to collect the  
2 data to be used as the basis for the SQ measures to be implemented in its SQP?

3 A. Yes, it has. Exh. FGE-TMB-5 provides information regarding the data collection  
4 process. It also identifies for the Department the time table when FG&E began  
5 collecting data for each SQ measure.

6 Q. Does this filing include the customer surveys required by the Department?

7 A. Yes, it does. In Exh. FGE-TMB-6, FG&E provides examples of two surveys for  
8 which FG&E seeks Department approval. It is FG&E's understanding of the  
9 Department's prior orders that the Department must pre-approve the surveys to  
10 satisfy the Department's requirements. In addition, the Department has indicated  
11 that surveys prepared and conducted through the use of a company's internal  
12 resources will be examined to provide confidence of the integrity of the survey  
13 results.

14 Q. Is there any additional information that is provided as part of the SQP?

15 A. Yes. In Exh. FGE-TMB-7, FG&E includes the workpapers developed to provide  
16 the supporting data for its SQ measures and the benchmarking data provided in  
17 Exh. FGE-TMB-4, Appendix A.

18 Q. Are there specific areas where FG&E's SQP includes modifications to the  
19 Guidelines?

1 A. Yes, although limited, there are areas that are modified to reflect company -  
2 specific proposals for FG&E.

3 Q. Would you please describe the modifications for the Department?

4 A. Yes I will.

5 • The Guidelines have been uniformly changed in two respects when  
6 converted for use as FG&E's SQP. Where the Guidelines speak of  
7 "companies" generically, FG&E's SQP identifies them as applicable to  
8 FG&E. Also, where the Guidelines use the future tense, e.g. "shall  
9 report," FG&E's SQP discusses the action in the present tense "reports."

10 • In Section 1.B, Definitions, FG&E defines "Operating Area" with respect  
11 to FG&E's gas and electric distribution territories. As the Department is  
12 aware, FG&E is a combined gas and electric utility under the  
13 Department's jurisdiction.

14 • In Section 1.B, Definitions, FG&E provides and defines the term "Planned  
15 Service Interruptions" for FG&E's Planned Outages.

16 • In Section 1.B, Definitions, FG&E modifies "Transmission and  
17 Distribution Revenues" to address the base distribution revenues of FG&E  
18 that are subject to the penalties that may be assessed under its SQP.

19 Similarly, in Section VII.B, Penalty and Penalty Offset Formulas, FG&E

1           noted at the definition of Annual Revenues (AR) that the Annual  
2           Revenues in question are the Annual Distribution Revenues of FG&E.

- 3           •     In various sections, for instance in Sections II.A, II.B and II.C, each part  
4           of Customer Service and Billing Performance Measures, FG&E identifies  
5           that penalties attach to the performance measures discussed. In those  
6           instances, consistent with the implementation of penalties provided in  
7           Section VII.A, Revenue Penalties and Penalty Offsets, FG&E notes that  
8           the penalties take effect following review after the first full calendar year  
9           that FG&E's cast-off rates under performance based rates are in effect.  
10          This can be seen in Exh. FGE-TMB-3 in redline in several locations.  
11          FG&E included it to make sure all parties were clear as to FG&E's  
12          interpretation of the required implementation of the penalty process.

- 13          •     In Section IV, Staffing Level Benchmark, FG&E has decided to propose  
14          specific language in this section when the Department has finalized its  
15          interpretation of prior orders. The Department presently has under  
16          advisement Bay State Gas Company's October 22, 2001 Request for  
17          Rehearing in this docket, related to the appropriate language for this  
18          section.

- 19          •     In Section VI.A, Reliability and Safety Performance Measures, FG&E  
20          removed the section of the Guidelines relating to SAIDI and SAIFI that

1 may be filed in a manner inconsistent with Section V of the Guidelines.

2 FG&E, in fact, will file its SAIDI and SAIFI in a manner consistent with  
3 Section V, Assumptions for Calculating Electric Reliability Measures, so  
4 this language was deemed unnecessary.

- 5 • In Section VII.A, FG&E has articulated two points with regard to  
6 penalties that are consistent with the Department's decisions: that penalty  
7 offsets may only be used to offset revenue penalties *in the year they occur*;  
8 and the application of penalty offsets as the result of superior performance  
9 to the Response to Odor Calls measure.

- 10 • In Section VII.B, Penalties and Penalty Offset Formulas, FG&E has  
11 included a definition of Customer Payments "CP" for Customer Payments  
12 to be credited under Section XI, Customer Service Guarantees. This  
13 concept is included in the model also in Section VII.C, Penalty and  
14 Penalty Offset Formulas for Class I and Class II Odor Calls.

- 15 • In Section VII.C, Penalty and Penalty Offset Formulas for Class I and  
16 Class II Odor Calls, FG&E has included a calculation of the penalty offset  
17 formula for superior performance in the measure set forth in Section VI.B.

- 18 • In Section VII.D, Apportionment of Penalty Among Performance  
19 Measures, FG&E has identified which safety and reliability measures

1           pertain to electric distribution operations, and which apply to its gas  
2           distribution operations.

- 3           •     In Section VII.H, Reporting Requirements - Electric Service Outages,  
4           FG&E has identified that its outage reporting will comply with the  
5           Department's Outage Report Protocol ("ORP"). Therefore, FG&E has  
6           removed the other more specific language from the Department's  
7           Guidelines, which predated the issuance of the August 24, 2001 ORP.

- 8           •     In Section VIII.C, Reporting Requirements - Benchmarks, as to  
9           "Consumer and Billing standards," to reflect its understanding of the  
10          standard relating to "Customer Service and Billing." In that same section,  
11          FG&E has identified that its standard deviation, benchmark values and  
12          supporting calculations are included in Appendix A. Appendix A is Exh.  
13          FGE-TMB-4 attached to this filing.

- 14          •     In Section VIII, the SQP identifies other reporting requirements such as  
15          line losses, capital expenditure information, spare components, etc...  
16          FG&E will file these other reporting requirements in its first annual report  
17          due March 1, 2002, consistent with its understanding of the Department's  
18          Order.

- 19          •     In accordance with the ORP, which FG&E deems to be governing outage  
20          and safety reporting to the Department, and the fact that Section IX,

1           Submitting Annual Reports to the Department, covers the measures  
2           included in the SQP, FG&E has omitted Section X of the Department's  
3           Guidelines, as unnecessary and duplicative for inclusion in the SQP.

- 4           •     In Section X of FG&E's SQP, Billing Information, FG&E has included the  
5           appropriate billing information as required by Section XI of the  
6           Department's Guidelines.

- 7           •     In Section XI of FG&E's SQP, Customer Service Guarantees, FG&E  
8           offers service performance guarantees related to its ability to keep service  
9           appointments and to notify customers of planned service interruptions.

10          This performance guarantee provides for a service credit to each customer  
11          impacted when FG&E fails to perform in the guaranteed areas.

12    **III. CONCLUSION**

13    Q.     Does this conclude your testimony?

14    A.     Yes, it does.

## **ATTACHMENT 2**

# **Fitchburg Gas and Electric Light Company**

## **SERVICE QUALITY PLAN**

### **1. GENERAL**

#### **A. Provisions**

The following guidelines shall apply to Fitchburg Gas and Electric Light Company ("FG&E"), unless otherwise indicated. In the event of a conflict between these guidelines and any orders or regulations of the Department, said orders and regulations shall govern.

#### **B. Definitions**

"Billing Adjustment" shall mean a revenue adjustment amount resulting from Departmental intervention in a billing dispute between FG&E and a residential customer.

"Circuit" shall mean a conductor or system of conductors through which an electric current is intended to flow.

"Class I Odor Call" shall mean those calls that relate to a strong odor of gas throughout a household or outdoor area, or a severe odor from a particular area.

"Class II Odor Call" shall mean calls involving an occasional or slight odor at an appliance.

"Complaint" shall mean a formal complaint to the Consumer Division of the Department wherein the Consumer Division creates a systems record with a customer's name and address.

"Consumer Division Case" shall mean a written record opened by the Consumer Division of the Department in response to a Complaint that meets the criteria set forth in Section III.A.

"Customer Average Interruption Duration Index" or "CAIDI" shall mean the total duration of customer interruption in minutes (as calculated by application of Section V herein) divided by the total number of customer interruptions, expressed in minutes per year. CAIDI characterizes the average time required to restore service to the average customer per sustained interruption during the reporting period.

"Customer Equipment Outage" shall mean an outage caused by customer operation or the



failure of customer-owned equipment.

"Electric Distribution" shall mean the delivery of electricity over lines that operate at a voltage level typically equal to or greater than 110 volts and less than 69,000 volts to an end-use customer within the Commonwealth.

"Electric Distribution Facility" shall mean plant or equipment used for the distribution of electricity that is not a transmission facility, a cogeneration facility, or a small power production facility.

"Electric Distribution Feeder" shall mean a distribution facility circuit conductor between the service equipment, the source of a separately derived system, or other power-supply source and the final branch-circuit overcurrent device.

"Electric Distribution Line Loss" shall mean the electrical energy that is lost in the distribution system. Such loss includes (1) energy that is lost directly due to the delivery of electrical energy and results from the physical properties of the system's wires and transformers and other incidental substation use, and (2) energy that is lost because of diversion, theft, and other unmetered use.

"Electric Distribution Service" shall mean the delivery of electricity to the customer by FG&E over lines that operate at a voltage level typically equal to or greater than 110 volts and less than 69,000 volts.

"Emergency Call" shall mean a telephone call where the caller believes that he or she is confronting special circumstances that might lead to bodily and/or system-related damage if the circumstances remain unaddressed. Examples include, but are not limited to, downed wires, gas leaks, and gas odor reports.

"Excludable Major Event" shall mean a major outage event that meets one of the following criteria: (i) the event is caused by earthquake, fire, or storm of sufficient intensity to give rise to a state of emergency being proclaimed by the Governor (as provided under the Massachusetts Civil Defense Act); (ii) any other event that causes an unplanned interruption of service to 15 percent or more of FG&E's electric customers in an operating area; or (iii) an event that results from the failure or disturbance of a transmission, power supply, or other system that is not owned or operated by FG&E. Notwithstanding the foregoing criteria, an extreme temperature condition would not constitute an Excludable Major Event.

"Lost Work Time Accident Rate" shall mean the Incidence Rate of Lost Work Time Injuries and Illness per 200,000 Employee Hours as defined by the U.S. Department of Labor Bureau of Labor Statistics.

"Meter Reading" shall mean the act of manually or automatically acquiring customer-specific usage levels of an energy resource, expressed in numerical units, for a defined period by actually consulting the customer's meter.

"Momentary Outage" or "Momentary Interruption" shall mean an outage or interruption of electric service of less than one minute.

"Non-emergency Call" shall mean all telephone calls other than emergency calls.

"Operating Area" shall mean FG&E's electric franchise territory and gas franchise territory.

"Outage Reporting Protocol Letter" shall mean the Department's August 24, 2001 letter implementing a revised Outage Reporting Protocol for electric distribution companies.

"Planned Outage" or "planned service interruption" shall mean an outage that is scheduled by the utility and of which customers are notified in advance, including, for example, during the connection of new customers or to ensure the safe performance of maintenance activities.

"Poor Performing Circuit" shall mean any distribution feeder that:

- (i) has sustained a circuit SAIDI or SAIFI value for a reporting year that is among the highest (worst) ten percent of FG&E's feeders for any two consecutive reporting years; or
- (ii) has sustained a circuit SAIDI or SAIFI value for a reporting year that is more than 300 percent greater than the system average of all feeders in any two consecutive reporting years.

"Restricted Work Day Rate" shall mean the Incidence Rate of Restricted Work cases per 200,000 Employee Hours as defined by the U.S. Department of Labor Bureau of Labor Statistics.

"Service Appointment" shall refer to a mutually agreed upon arrangement for service between FG&E and the customer that specifies the date for FG&E's personnel to perform a service activity that requires the presence of the customer at the time of service.

"Service Interruption To A High-profile Customer" shall mean an outage that has a reasonable probability of involving a high-profile customer, including a hospital, airport, or large manufacturing, commercial, or institutional customer (who has a demand of 1 megawatt or greater).

“System Average Interruption Duration Index” or “SAIDI” shall mean the total duration of customer interruption in minutes (as calculated by application of Section V herein) divided by the total number of customers served by the distribution system, expressed in minutes per year. SAIDI characterizes the average length of time that customers are without electric service during the reporting period.

“System Average Interruption Frequency Index” or “SAIFI” shall mean the total number of customer interruptions divided by the total number of customers served by the distribution system, expressed in interruptions per customer per year. SAIFI characterizes the average number of sustained electric service interruptions for each customer during the reporting period.

“Sustained Outage” or “Sustained Interruption” shall mean an outage or interruption of electric service that lasts at least one minute and is not classified as a momentary outage.

“Distribution Revenues” shall mean revenues collected through the base distribution rates of FG&E.

“Unaccounted-for Gas” shall mean the reduction in the quantity of natural gas flowing through a pipeline that results from leaks, venting, and other physical and operational circumstances on a pipeline system. Unaccounted-for Gas is also referred to as a line loss.

“Year” shall mean calendar year unless otherwise noted.

C. Benchmarking

The historical average and standard deviation for benchmarking is based on the ten most recent years worth of data for FG&E. This is a fixed average for the duration of the PBR. Where ten years worth of information is not available, FG&E will use the maximum number of years of data available, so long as three years are available. As FG&E collects additional data, that data will be included in benchmarking until ten years worth of data is collected.

For SAIDI and SAIFI, the historic average and standard deviation for benchmarking will be based on the years 1996, 1997, 1998, 1999, and 2000.

## II. CUSTOMER SERVICE AND BILLING PERFORMANCE MEASURES

### A. Telephone Service Factor

FG&E gathers data and report statistics on its handling of telephone calls. Call data is compiled and aggregated monthly. Reporting occurs annually. The reports are submitted in accordance with Section IX below. FG&E reports the percentage of telephone calls that are handled within 20 seconds. FG&E also provides, separately, call-handling times for Emergency Calls and Non-Emergency Calls.

Telephone Service Factor is measured beginning at the point that the caller makes a service selection and ending at the point that the call is responded to by the service area selected by the caller. If the caller does not make a selection, the response time is measured from a point following the completion of FG&E's recorded menu options and ending at the point that a customer-service representative responds to the call.

Telephone Service Factor is a performance measure subject to a revenue penalty, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

### B. Service Appointments Met As Scheduled

FG&E gathers data and report statistics regarding the number of service calls met on the same day requested, excluding when a customer misses a mutually-agreed upon time. Service Appointments may be rescheduled as long as mutually agreed upon by FG&E and the customer. FG&E reports the percentage of scheduled service appointments met by FG&E personnel on the same day requested. Service appointment data is compiled and aggregated monthly. Reporting occurs annually. The reports are submitted in accordance with Section IX, below. Service Appointments Met As Scheduled is a performance measure subject to a revenue penalty, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

### C. On-Cycle Meter Readings

FG&E gathers data and report statistics for the percentage of meters that are actually read by FG&E on a monthly basis. FG&E reports the percentage of customer meters actually read on a monthly basis. Eligible meters include both residential and commercial accounts. Meter reading data is compiled and aggregated monthly. Reporting occurs annually. The reports are submitted in accordance with Section IX, below. On-cycle Meter Reading are a performance measure subject to a revenue penalty, beginning at the review following the first full calendar year of FG&E performance under a Department-

approved performance-based rate plan.

### III. CUSTOMER SATISFACTION MEASURES

#### A. Consumer Division Cases

Customer complaints are categorized as a Consumer Division Case where a written record is opened by the Consumer Division using the following criteria:

- (1) the individual making the Complaint provides his or her identity to the Consumer Division and is either a (a) current, prospective, or former customer of FG&E against which the Complaint has been lodged, or (b) designee of the current, prospective, or former customer of FG&E;
- (2) the individual or his/her designee has contacted FG&E prior to lodging a Complaint with the Department;
- (3) the Department's investigator cannot resolve the Complaint without contacting FG&E to obtain more information;
- (4) the matter involves an issue or issues over which the Department typically exercises jurisdiction; and
- (5) the matter involves an issue or issues over which FG&E has control.

Consumer complaint data and billing adjustment data are employed as service quality measures. The Department compiles and aggregates, on a monthly basis, the frequency of Consumer complaints regarding FG&E. The Department also compiles and aggregates, on a monthly basis, the dollar amounts of Billing Adjustments. The Department reports FG&E-specific data on both of these measures annually. Revenue penalties shall apply to each of these measures, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

Consumer Division Cases for FG&E will be provided on a combined basis since the data can not reasonably be segregated between FG&E's gas and electric divisions.

#### B. Billing Adjustments

The Department compiles and aggregates, on a monthly basis, the dollar amount of residential Billing Adjustments per 1,000 residential customers. The Department

provides such data to FG&E on an annual basis.

Billing Adjustments for FG&E's gas and electric division operations will be provided separately for each division.

#### C. Consumer Surveys

FG&E provides the results of two surveys to the Department on an annual basis: (1) a customer satisfaction survey of a statistically representative sample of residential customers; and (2) a survey of customers randomly selected from those customers who have contacted FG&E's customer service department within the year in which service is being measured. The representative sample is newly drawn from customers contacting FG&E's customer service area in the year previous and is conducted with a sample of respondents who are *redialed* after having concluded a contact with FG&E's customer service area.

For the residential customer satisfaction survey, customers will be asked to respond to the following question using a scale where 1 = very dissatisfied and 7 = very satisfied; "Overall, how satisfied are you with the service you are receiving from Unitil Fitchburg Gas & Electric?" For the customer-specific survey, customers will be asked to respond to the following question using a scale where 1 = very dissatisfied and 7 = very satisfied; "How satisfied were you with the service you received from our customer service department?"

FG&E reports the results of these surveys to the Department on an annual basis as specified in Section IX and includes the results from the previous years of the survey up to a maximum of ten years. No benchmarks are calculated for these survey measures, because no revenue penalty mechanism has been assigned to these measures.

#### IV. STAFFING LEVEL BENCHMARK

To be determined upon a ruling by the Department concerning a Motion for Clarification and Extension of Judicial Appeal Period By The Bay State Gas Company.

#### V. ASSUMPTIONS FOR CALCULATING ELECTRIC RELIABILITY MEASURES

For the purpose of calculating SAIDI, SAIFI, and CAIDI, the following assumptions and criteria are used in accumulating outage data for standardizing reliability measurements:

- A. Customer Equipment Outages are excluded from the calculation of SAIDI, SAIFI, and CAIDI;
- B. Planned outages are excluded from the calculation of SAIDI, SAIFI, and CAIDI;
- C. Excludable Major Events are excluded from the calculation of SAIDI, SAIFI, and CAIDI;
- D. Momentary Outages are excluded from the calculation of SAIDI, SAIFI, and CAIDI;
- E. The beginning of an outage is recorded at the earlier of an automatic alarm or the first report of no power;
- F. The end of an outage is recorded at that point that power to customers is restored;
- G. Outages involving a primary distribution circuit are included in the calculation of SAIDI, SAIFI, and CAIDI. Outages that do not involve a primary distribution circuit (i.e., secondary, line transformer only or service only) are not included in the standardized indices.
- H. Where only part of a circuit experiences an outage, the number of customers affected are estimated, unless an actual count is available. When power is partially restored, the number of customers restored also is estimated.
- I. When customers lose power as a result of the process of restoring power (such as from switching operations and fault isolation), the duration of these additional outages is included, but the additional number of interruptions are not included in the calculation.

## VI. RELIABILITY AND SAFETY PERFORMANCE MEASURES

### A. Electric Reliability

FG&E measures SAIDI and SAIFI on an annual basis in accordance with Section V and compares its performance to a benchmark established by Section I.C. SAIDI and SAIFI shall be performance measures subject to a revenue penalty in Section VII beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

B. Response to Odor Calls

FG&E responds to 95 percent of all Class I and Class II odor calls in one hour or less as required by the Department-established performance standard. In order to ensure compliance with this standard, Response to Odor Calls is a performance measure subject to a revenue penalty in Section VII beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

C. Lost Work Time Accident Rate

FG&E measures annually its Lost Work Time Accident Rate. The Lost Work Time Accident Rate is a performance measure subject to a revenue penalty in Section VII beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

VII. REVENUE PENALTIES AND PENALTY OFFSETS

A.- Applicability

The revenue penalty for the performance measures set forth in above in Sections II, III, and VI, except for Section VI.B, shall be determined in accordance with the penalty formula in Section VII.B. If FG&E's annual performance for a performance measure falls within or is equal to one standard deviation from the benchmark, no revenue penalty nor penalty offset shall be imposed for that measure. If FG&E's annual performance for a measure exceeds one standard deviation up to two standard deviations (to the closest tenth of a decimal point) above the benchmark, it will be subject to the revenue penalty shown in Section VII.B.

If FG&E's annual performance for a performance measure exceeds two standard deviations above the benchmark in any year, then the Department may open a formal investigation as to the reasons for the poor performance.

Penalty offsets are calculated in a similar fashion to revenue penalties. If FG&E's annual performance for a performance measure falls within or is equal to one standard deviation below the benchmark, no revenue offset is achieved. If FG&E's annual performance is below one standard deviation (to the closest tenth of a decimal point) below the benchmark, it will earn a penalty offset. If FG&E falls below two standard deviations in performance, the penalty offset is capped at the level associated with two standard deviations.



Penalty offsets may only be used to offset revenue penalties in the year they occur. Penalty offsets have no value other than to offset revenue penalties. Penalty offsets acquired on any performance measure may be used to offset revenue penalties on any other performance measure, except Response to Odor Calls. Superior performance on Response to Odor Calls may be used as an offset for deficient performance in other service quality measures.

The revenue penalty for Section VI.B shall be determined in accordance with the penalty formula in Section VII.C. If FG&E's annual performance for this measure equals or falls below 91 percent, then the Department may initiate an investigation.

B. Penalty and Penalty Offset Formulas

The revenue penalty formula for all performance measures (except for the measure in Section VI.B) shall be:

$$\text{Penalty}_M = \left[ 0.25 * \frac{(\text{Observed Result} - \text{Historical Average Result})^2}{\text{Standard Deviation}} \right] * \text{Maximum Penalty}$$

If:  $(\text{Observed Result} - \text{Historical Average Result})$  is a positive value.

The penalty offset formula for all performance measures (except for the measure in Section VI. B) shall be:

$$\text{Offset}_M = \left[ 0.25 * \frac{(\text{Observed Result} - \text{Historical Average Result})^2}{\text{Standard Deviation}} \right] * \text{Maximum Offset}$$

If:  $(\text{Observed Result} - \text{Historical Average Result})$  is a negative value.

Where:

$\text{Penalty}_M$  = revenue penalty applied to performance measure M;

$\text{Offset}_M$  = penalty offset applied to performance measure M;

Observed Result = the average actual performance measure achieved in year, rounded to the applicable decimal place as specified for each measure in Section VIII.A;

Historical Average Result = the average historical actual result, based on an arithmetic

average of the previous years<sub>a..x</sub> of historic data, rounded to the applicable decimal place as specified for each benchmark in Section VIII.C;

Standard Deviation = standard deviation of the historical average result; and

Maximum Penalty =  $(PCL_M) * (AR * 0.02 - CP)$

Maximum Offset =  $(PCL_M) * (AR * 0.02 - CP)$

Where:

$PCL_M$  = Performance category liability for the measure expressed as a percentage (derived from Section VII. D); and

AR = Annual Distribution Revenues of FG&E for the applicable year.

CP = Customer payments credited during the applicable year under XI. Customer Service Guarantees.

C. Penalty and Penalty Offset Formulas for Class I and Class II Odor Calls

The revenue penalty formula for the performance measure set forth in Section VI.B shall be:

Class I and II Odor Call Penalty = Penalty Factor \* Maximum Penalty

Where:

Penalty Factor is derived from Table PF, below:

Table PF	
<u>Penalty Factor</u>	<u>Calculation</u>
.25	when PP-OR = 1 percent
.50	when PP-OR = 2 percent
.75	when PP-OR = 3 percent
1.00	when PP-OR = 4 percent or more

The penalty offset formula for the performance measure set forth in Section VI.B shall

be:

Class I and II Odor Call Offset = Offset Factor\*Maximum Offset

Where:

Offset Factor is derived from Table OF, below:

**Table OF**

<u>Offset Factor</u>	<u>Calculation</u>
.25	when PP-OR = -1 percent
.50	when PP-OR = -2 percent
.75	when PP-OR = -3 percent
1.00	when PP-OR = -4 percent or less

Where:

PP = 95 percent Fixed Target Benchmark

OR = Observed percentage of Class I and Class II Odor Calls actually responded to within 60 minutes achieved in year, rounded to the nearest percentage point; and

Maximum Penalty = (PCL)\*(AR\*0.02-CP)

Maximum Offset = (PCL)\*(AR\*0.02-CP)

Where:

PCL = Performance category liability for the Class I & II Odor Calls measure expressed as a percentage (derived from Section VII. D); and

AR = Annual Distribution Revenues of FG&E for the applicable year.

CP = Customer payments credited during the applicable year

## under XI. Customer Service Guarantees.

D. Apportionment of Penalty Among Performance Measures

Revenue penalties shall be apportioned among the various performance measures as follows:

Safety and Reliability

SAIDI	22.5 percent (FG&E's Electric Division only)
SAIFI	22.5 percent (FG&E's Electric Division only)
Class I & II Odor Calls	45.0 percent (FG&E's Gas Division only)
Lost Work-Time Accident Rate	10.0 percent

Customer Service and Billing

Telephone Answering Rate	12.5 percent
Service Appointments Met	12.5 percent
On-Cycle Meter Readings	10.0 percent

Consumer Division Statistics

Consumer Division Cases	5.0 percent
Billing Adjustments	5.0 percent

VIII. REPORTING REQUIREMENTSA. Reliability, Line Loss, and Safety Indices and Rates

FG&E reports on an annual basis SAIDI, SAIFI, CAIDI, Lost Work Time Accident Rate, Electric Distribution Line Loss, Unaccounted-for Gas, Restricted Work Day Rate, and damage to FG&E property, and percentage of all Class I and Class II odor calls responded to in one hour or less ("Response to Odor Calls"). These reports are submitted in accordance with Section IX below.

CAIDI and SAIDI is reported in terms of minutes and is measured and reported to the nearest 100<sup>th</sup> of a minute. SAIFI is reported to the nearest 1000<sup>th</sup> of a reported outage. The Lost Work Time Accident Rate is reported to the nearest 100<sup>th</sup> of an accident. Restricted Work Day Rate is reported to the nearest 100<sup>th</sup> of a case. Electric Distribution Line Loss is reported to the nearest 10<sup>th</sup> of a percentage point. Unaccounted-for Gas is reported to the nearest 100<sup>th</sup> of a percentage point. The Customer Service and Billing Measures are reported to the nearest 10<sup>th</sup> of a percentage point. The Class I and Class II odor calls are reported to the nearest percentage point.

Substantiation of:

- (1) FG&E's Electric Distribution Line Loss value,
- (2) the accompanying adjustments that were made to standardize the value to specific reference conditions, and
- (3) the specific reference conditions

are reviewable as part of FG&E's annual reports on electric distribution line loss.

Property damage reports relating to incidents involving property of FG&E's electric division (in amounts greater than \$50,000 per incident) shall be filed annually. A report shall be submitted to the Department within 48 hours of the incident and shall include the same information as that submitted for accidents, as described in this Section VIII.I.

B. Past Reliability and Safety Performance Data

FG&E reports the Lost Work Time Accident Rate data from the past ten years in the same fashion as in Section VIII.A. FG&E reports SAIDI and SAIFI data from the past five years in the same fashion as in Section VIII.A. FG&E's SAIDI and SAIFI historical data has been standardized (consistent with the method in Section V). The SAIDI, SAIFI, and Lost Work Time Accident Rate data shall be filed annually in accordance with Section IX below. Accordingly, FG&E's first annual report will describe any limitations in data that affect its standardization of SAIDI and SAIFI, and shall provide FG&E's best estimate of the statistical error inherent in the standardized indices, to the extent such error is identified.

C. Benchmarks

FG&E provides the supporting calculations that were used in determining the standard deviation and benchmark values. SAIDI is reported in terms of minutes and shall be measured and reported to the nearest 100<sup>th</sup> of a minute. SAIFI is reported to the nearest 1000<sup>th</sup> of a reported outage. The Lost Work Time Accident Rate is reported to the nearest 100<sup>th</sup> of an accident. The Customer Service and Billing standards are reported to the nearest 10<sup>th</sup> of a percentage point. The reports are submitted in accordance with Section IX below.

Lost Work Time Accident Rate performance standards, Customer Service and Billing performance standards, and Customer Satisfaction performance standards that were determined in accordance with Sections II, III, and VI, above are reported annually. SAIDI and SAIFI performance standards and benchmarks that were determined in accordance with Section VI, above, are reported annually.

FG&E's standard deviation, benchmark values, and supporting calculations are included in Appendix A.

D. Annual Major Outage Events

FG&E identifies and reports on an annual basis the outages that are considered Excludable Major Events. For each major event excludable under the standard above, FG&E reports the total number of customers affected, the service area affected, the number of customers without service at periodic intervals, the time frame of longest customer interruption, and the number of crews used to restore service on a per shift basis. In addition, FG&E's report includes FG&E's policy on tree trimming, including its tree trimming cycle, inspection procedures, and typical minimum vegetation clearance requirement from electric lines. These reports are to be submitted in accordance with Section IX, below.

E. Capital Expenditure Information

All capital investment approved and capital investment completed in FG&E's distribution infrastructure to ensure delivery of reliable electricity and gas is reported annually by FG&E. This report includes a list of its major capital investment projects that relate to maintain transmission and distribution reliability and a summary description of each project. The summary includes a list and location of each transmission and distribution facility that was modified, upgraded, replaced, and/or constructed as well as the costs and scope of work involved in the facility modification, upgrade, replacement, and/or construction.

FG&E reports the same capital expenditure data from the ten most recent years in the same fashion as in the previous paragraph. FG&E will provide this data in its first annual report.

The reports are to be submitted in accordance with Section IX below.

F. Spare Component and Acquisition Inventory Policy and Practice

FG&E's policy for identifying, acquiring, and stocking critical spare components for its distribution and transmission system will be reported on an annual basis. FG&E's first annual report will address how this policy has changed or evolved over the past 10 years. The reports are to be submitted in accordance with Section IX below.

G. Poor Performing Circuits

FG&E's experience with poor performing circuits will be identified and reported on an

annual basis. FG&E's report on these poor performing circuits will include the following information:

- (1) the feeder or circuit identification number;
- (2) the feeder or circuit location;
- (3) the reason(s) why the circuits performed poorly during the reporting year;
- (4) the number of years that the circuit(s) performed poorly;
- (5) the steps that are being considered and/or have been implemented to improve the reliability of these circuits; and
- (6) the SAIDI or SAIFI value for the specific circuit(s).

The reports are to be submitted in accordance with Section IX below.

#### H. Electric Service Outages

FG&E reports the distribution and transmission outages consistent with the Department's Outage and Accident Reporting Procedures (see Outage Reporting Protocol Letter, dated Aug. 24, 2001).

#### I. Other Safety Performance Measures

In compliance with the requirements of G.L. c. 164, § 95 and the Department's August 24, 2001 Outage Reporting Protocol Letter, FG&E reports to the Department within a 24-hour period of an accident the following information:

- (1) time and date of incident;
- (2) time and date of the notice to the Department;
- (3) location of the incident;
- (4) a detailed description of the accident including information about fatalities, injuries, facilities and third-party property damage; and
- (5) the name and telephone number of a FG&E employee who may be contacted about the accident.

### IX. SUBMITTING ANNUAL REPORTS TO THE DEPARTMENT

FG&E will file each annual report with the Department by March 1 of each year, reflecting the data from the previous year(s). The annual report will be submitted in the following manner:

- A. the original to Secretary, Department of Telecommunications and Energy, One

South Station, Boston, Massachusetts 02110;

- B. one copy to the Electric Power Division Director, Department of Telecommunications and Energy, One South Station, Boston, Massachusetts 02110;
- C. one copy to the Rates and Revenues Division Director, Department of Telecommunications and Energy, One South Station, Boston, Massachusetts, 02110;
- D. one copy of the report to the Consumer Division Director, Department of Telecommunications and Energy, One South Station, Boston Massachusetts 02110; and
- E. an electronic copy of the report to the Department, by one of two means:  
(1) by e-mail attachment to [dte.efiling@state.ma.us](mailto:dte.efiling@state.ma.us); or (2) on a 3.5" floppy diskette, IBM-compatible format to the Director of Electric Power Division, Department of Telecommunications and Energy, One South Station, Boston Massachusetts 02110. The text of the e-mail or the diskette label must specify:  
(1) an easily identifiable case caption; (2) docket number; (3) name of the person or Company submitting the filing, and (4) a brief descriptive title of document (e.g., comments or petition to intervene). The electronic filing should also include the name, title and phone number of a person to contact in the event of questions about the filing. Text responses should be written in either Word Perfect (naming the document with a ".wpd" suffix) or in Microsoft Word, (naming the document with a ".doc" suffix). Data or spreadsheet responses should be compatible with Microsoft Excel.

#### X. BILLING INFORMATION

Upon approval by the Department, FG&E will place the following language on the back side of customer bills, which notifies customers of (a) their ability to contact the Department regarding service quality complaints or questions, and (b) the Department's website address ([www.magnet.state.ma.us/dpu](http://www.magnet.state.ma.us/dpu)):

*If you are not satisfied or have questions regarding our service quality, please call our 24 hour Customer Service office at 888-301-7700. If you remain unsatisfied, you may also contact the Department of Telecommunications and Energy by:*

- Telephone: 1-800-392-6066 or 1-617-727-3531
- Web Site Address: <http://www.magnet.state.ma.us/dpu/>
- Writing: Department of Telecommunications and Energy



*Consumer Division  
One South Station  
Boston, MA 02110*

XI. CUSTOMER SERVICE GUARANTEES

FG&E will provide customer service guarantees for two customer service measures: (1) failure to keep service appointments, and (2) lack of notification of planned service interruptions. FG&E guarantees that if it fails to keep a service appointment or it fails to notify a customer of a planned service interruption, it will credit the customer \$25. Any customer payments credited during the applicable year will be deducted from the maximum penalty and maximum offset formulas provided in Section VII, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

XII. GENERAL RESERVATION

The Department retains the discretion to waive or depart from any provision of FG&E's Service Quality Plan to the full extent such discretion is granted under law.

## **ATTACHMENT 3**

Fitchburg Gas and Electric Light Company ~~ATTACHMENT 1~~

**SERVICE QUALITY PLAN GUIDELINES**

1. GENERAL

A. Provisions

The following guidelines shall apply to Fitchburg Gas and Electric Light Company ("FG&E") ~~every gas and electric distribution company authorized to do business in the Commonwealth of Massachusetts, unless otherwise indicated.~~ In the event of a conflict between these guidelines and any orders or regulations of the Department, said orders and regulations shall govern. ~~If a gas or electric distribution company requests approval of a service quality plan that deviates, in whole or in part, from these guidelines, the request must be accompanied by reasons for each and every departure.~~

B. Definitions

"Billing Adjustment" shall mean a revenue adjustment amount resulting from Departmental intervention in a billing dispute between FG&Ea Company and a residential customer.

"Circuit" shall mean a conductor or system of conductors through which an electric current is intended to flow.

"Class I Odor Call" shall mean those calls that relate to a strong odor of gas throughout a household or outdoor area, or a severe odor from a particular area.

"Class II Odor Call" shall mean calls involving an occasional or slight odor at an appliance.

~~"Company" or "Companies" shall refer to electric and gas distribution companies unless otherwise indicated.~~

"Complaint" shall mean a formal complaint to the Consumer Division of the Department wherein the Consumer Division creates a systems record with a customer's name and address.

"Consumer Division Case" shall mean a written record opened by the Consumer Division

Fitchburg Gas and Electric Light Co.

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of the Department in response to a Complaint that meets the criteria set forth in Section III.A.

"Customer Average Interruption Duration Index" or "CAIDI" shall mean the total duration of customer interruption in minutes (as calculated by application of Section V herein) divided by the total number of customer interruptions, expressed in minutes per year. CAIDI characterizes the average time required to restore service to the average customer per sustained interruption during the reporting period.

"Customer Equipment Outage" shall mean an outage caused by customer operation or the failure of customer-owned equipment.

"Electric Distribution" shall mean the delivery of electricity over lines that operate at a voltage level typically equal to or greater than 110 volts and less than 69,000 volts to an end-use customer within the Commonwealth.

"Electric Distribution Facility" shall mean plant or equipment used for the distribution of electricity that is not a transmission facility, a cogeneration facility, or a small power production facility.

"Electric Distribution Feeder" shall mean a distribution facility circuit conductor between the service equipment, the source of a separately derived system, or other power-supply source and the final branch-circuit overcurrent device.

"Electric Distribution Line Loss" shall mean the electrical energy that is lost in the distribution system. Such loss includes (1) energy that is lost directly due to the delivery of electrical energy and results from the physical properties of the system's wires and transformers and other incidental substation use, and (2) energy that is lost because of diversion, theft, and other unmetered use.

"Electric Distribution Service" shall mean the delivery of electricity to the customer by ~~FG&E the electric distribution company~~ over lines that operate at a voltage level typically equal to or greater than 110 volts and less than 69,000 volts.

"Emergency Call" shall mean a telephone call where the caller believes that he or she is confronting special circumstances that might lead to bodily and/or system-related damage if the circumstances remain unaddressed. Examples include, but are not limited to, downed wires, gas leaks, and gas odor reports.

"Excludable Major Event" shall mean a major outage event that meets one of the

following criteria: (i) the event is caused by earthquake, fire, or storm of sufficient intensity to give rise to a state of emergency being proclaimed by the Governor (as provided under the Massachusetts Civil Defense Act); (ii) any other event that causes an unplanned interruption of service to 15 percent or more of FG&E's electric ~~the electric distribution company's~~ customers in an operating area; or (iii) an event that results from the failure or disturbance of a transmission, power supply, or other system that is not owned or operated by FG&E ~~the electric distribution company~~. Notwithstanding the foregoing criteria, an extreme temperature condition would not constitute an Excludable Major Event.

"Lost Work Time Accident Rate" shall mean the Incidence Rate of Lost Work Time Injuries and Illness per 200,000 Employee Hours as defined by the U.S. Department of Labor Bureau of Labor Statistics.

"Meter Reading" shall mean the act of manually or automatically acquiring customer-specific usage levels of an energy resource, expressed in numerical units, for a defined period by actually consulting the customer's meter.

"Momentary Outage" or "Momentary Interruption" shall mean an outage or interruption of electric service of less than one minute.

"Non-emergency Call" shall mean all telephone calls other than emergency calls.

"Operating Area" shall mean ~~a geographical subdivision of FG&E's each electric distribution company's~~ electric franchise territory and gas franchise territory as defined by the electric distribution company. These areas may also be referred to as regions, divisions, or districts.

"Outage Reporting Protocol Letter" shall mean the Department's August 24, 2001 letter implementing a revised Outage Reporting Protocol for electric distribution companies.

"Planned Outage" or "planned service interruption" shall mean an outage that is scheduled by the utility and of which customers are notified in advance, including, for example, during the connection of new customers or to ensure the safe performance of maintenance activities.

"Poor Performing Circuit" shall mean any distribution feeder that:

- (i) has sustained a circuit SAIDI or SAIFI value for a reporting year that is among the highest (worst) ten percent of ~~FG&E's~~ that utility's feeders for any two consecutive reporting years; or
- (ii) has sustained a circuit SAIDI or SAIFI value for a reporting year that is more than 300 percent greater than the system average of all feeders in any two consecutive reporting years.

"Restricted Work Day Rate" shall mean the Incidence Rate of Restricted Work cases per 200,000 Employee Hours as defined by the U.S. Department of Labor Bureau of Labor Statistics.

"Service Appointment" shall refer to a mutually agreed upon arrangement for service between ~~FG&E the Company~~ and the customer that specifies the date for ~~FG&E's~~ the Company's personnel to perform a service activity that requires the presence of the customer at the time of service.

"Service Interruption To A High-profile Customer" shall mean an outage that has a reasonable probability of involving a high-profile customer, including a hospital, airport, or large manufacturing, commercial, or institutional customer (who has a demand of 1 megawatt or greater).

"System Average Interruption Duration Index" or "SAIDI" shall mean the total duration of customer interruption in minutes (as calculated by application of Section V herein) divided by the total number of customers served by the distribution system, expressed in minutes per year. SAIDI characterizes the average length of time that customers are without electric service during the reporting period.

"System Average Interruption Frequency Index" or "SAIFI" shall mean the total number of customer interruptions divided by the total number of customers served by the distribution system, expressed in interruptions per customer per year. SAIFI characterizes the average number of sustained electric service interruptions for each customer during the reporting period.

"Sustained Outage" or "Sustained Interruption" shall mean an outage or interruption of electric service that lasts at least one minute and is not classified as a momentary outage.

~~"Transmission and Distribution Revenues"~~ shall mean revenues collected through the base distribution rates of FG&E ~~transmission and distribution company.~~

"Unaccounted-for Gas" shall mean the reduction in the quantity of natural gas flowing through a pipeline that results from leaks, venting, and other physical and operational circumstances on a pipeline system. Unaccounted-for Gas is also referred to as a line loss.

"Year" shall mean calendar year unless otherwise noted.

C. Benchmarking

The historical average and standard deviation for benchmarking ~~will is~~ be based on the ten most recent years worth of data for FG&E ~~each Company.~~ This ~~will be~~ is a fixed average for the duration of the PBR. Where ten years worth of information is not available ~~to a specific Company, FG&E will the Company is directed to~~ use the maximum number of years of data available, so long as three years are available. As FG&E ~~the Company~~ collects additional data, that data will be included in benchmarking until ten years worth of data is collected.

For SAIDI and SAIFI, the historic average and standard deviation for benchmarking will be based on the years 1996, 1997, 1998, 1999, and 2000.



## II. CUSTOMER SERVICE AND BILLING PERFORMANCE MEASURES

### A. Telephone Service Factor

~~FG&E Each Company shall~~ gathers data and report statistics on its handling of telephone calls. Call data ~~shall be~~ is compiled and aggregated monthly. Reporting ~~shall occur~~ annually. The reports ~~shall be~~ are submitted in accordance with Section IX below.

~~FG&E Each Company shall~~ reports the percentage of telephone calls that are handled within 20 seconds, a time interval that is consistent with a Company's existing telephone response time measurement system, or as otherwise approved by the Department. Companies who have had no telephone response time measurement system until the date of this Order shall adopt a 20 second performance standard. At the conclusion of five years from the date of this Order, all Companies shall adopt the 20 second performance standard. ~~FG&E Each Company shall~~ also provides, separately, call-handling times for Emergency Calls and Non-Emergency Calls.

Telephone Service Factor ~~shall be~~ is measured beginning at the point that the caller makes a service selection and ending at the point that the call is responded to by the service area selected by the caller. If the caller does not make a selection, the response time ~~shall be~~ is measured from a point following the completion of ~~FG&E's the Company's~~ recorded menu options and ending at the point that a customer-service representative responds to the call.

Telephone Service Factor ~~shall be~~ is a performance measure subject to a revenue penalty, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

### B. Service Appointments Met As Scheduled

~~FG&E Each Company shall~~ gathers data and report statistics regarding the number of service calls met on the same day requested, excluding when a customer misses a mutually-agreed upon time. Service Appointments may be rescheduled as long as mutually agreed upon by FG&E and the customer. ~~FG&E Each Company shall~~ reports the percentage of scheduled service appointments met by ~~FG&E Company~~ personnel on the same day requested. Service appointment data ~~shall be~~ is compiled and aggregated monthly. Reporting ~~shall occur~~ annually. The reports ~~shall be~~ are submitted in accordance with Section IX, below. Service Appointments Met As Scheduled ~~shall be~~ is a

performance measure subject to a revenue penalty, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

C. On-Cycle Meter Readings

~~FG&E Each Company shall~~ gathers data and report statistics for the percentage of meters that are actually read by ~~FG&E the Company, on a monthly basis.~~ ~~FG&E Each Company shall~~ reports the percentage of customer meters actually read on a monthly basis. Eligible meters include both residential and commercial accounts. Meter reading data ~~shall be is~~ compiled and aggregated monthly. Reporting ~~shall occurs~~ annually. The reports ~~shall be are~~ submitted in accordance with Section IX, below. On-cycle Meter Reading ~~shall be are~~ a performance measure subject to a revenue penalty, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

III. CUSTOMER SATISFACTION MEASURES

A. Consumer Division Cases

Customer complaints ~~shall be are~~ categorized as a Consumer Division Case where a written record is opened by the Consumer Division using the following criteria:

- (1) the individual making the Complaint provides his or her identity to the Consumer Division and ~~is~~ either a (a) current, prospective, or former customer of ~~FG&E the Company~~ against which the Complaint has been lodged ~~Company,~~ or (b) designee of the current, prospective, or former customer of ~~FG&E the Company;~~
- (2) the individual or his/her designee has contacted ~~FG&E the Company~~ from which the customer receives distribution service prior to lodging a Complaint with the Department;
- (3) the Department's investigator cannot resolve the Complaint without contacting ~~FG&E the Company~~ to obtain more information;
- (4) the matter involves an issue or issues over which the Department typically exercises jurisdiction; and

- (5) the matter involves an issue or issues over which FG&E ~~the Company~~ has control.

Consumer complaint data and billing adjustment data ~~shall be~~ are employed as service quality measures. The Department ~~will compile and aggregates, on a monthly basis,~~ the frequency of Consumer complaints regarding FG&E. The Department also ~~will compile and aggregates, on a monthly basis,~~ the dollar amounts of Billing Adjustments. The Department ~~will report FG&E-specific data on both of these measures annually. The Department will offer company specific meetings to discuss each Company's performance annually.~~ Revenue penalties shall apply to each of these measures, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

Consumer Division Cases for FG&E will be provided on a combined basis since the data can not reasonably be segregated between FG&E's gas and electric divisions.

B. Billing Adjustments

The Department ~~will compile and aggregates, on a monthly basis,~~ the dollar amount of residential Billing Adjustments per 1,000 residential customers. The Department ~~will provide such data to FG&E each Company on an annual basis. Upon request of the Company, the Department may conduct a company specific meeting to discuss the Company's performance.~~

Billing Adjustments for FG&E's gas and electric division operations will be provided separately for each division.

C. Consumer Surveys

~~FG&E Each Company shall provide~~ the results of two surveys to the Department on an annual basis: (1) a customer satisfaction survey of a statistically representative sample of residential customers; and (2) a survey of customers randomly selected from those customers who have contacted FG&E's ~~the Company's~~ customer service department within the year in which service is being measured. The representative sample ~~shall be~~ is newly drawn from customers contacting FG&E's ~~the Company's~~ customer service area in the year previous and ~~shall be~~ is conducted with a sample of respondents who are *redialed* after having ~~concluded a contact with FG&E's~~ the Company's customer service area. ~~The~~

~~surveys, if conducted internally, shall be pre-approved by the Department regarding the method and customer questions.~~

For the residential customer satisfaction survey, customers will be asked to respond to the following question shall be used: "Using a scale where 1 = very dissatisfied and 7 = very satisfied; "Overall, how satisfied are you with the service you are receiving from Until Fitchburg Gas & Electric Company name?" For the customer-specific survey, customers will be asked to respond to the following question shall be employed: "Using a scale where 1 = very dissatisfied and 7 = very satisfied; "How satisfied were you with the service you received from the our customer service department of Company Name?"

~~FG&E Each Company shall reports~~ the results of these surveys to the Department on an annual basis as specified in Section IX and ~~shall includes~~ the results from the previous years of the survey up to a maximum of ten years. No benchmarks ~~shall be~~ are calculated for these survey measures, because no revenue penalty mechanism has been assigned to these measures.

#### IV. STAFFING LEVEL BENCHMARK

~~Staffing benchmarks will be established on a company specific basis and will be determined by the then effective collective bargaining agreement for each Company. To be determined upon a ruling by the Department concerning a Motion for Clarification and Extension of Judicial Appeal Period By The Bay State Gas Company.~~

#### V. ASSUMPTIONS FOR CALCULATING ELECTRIC RELIABILITY MEASURES

For the purpose of calculating SAIDI, SAIFI, and CAIDI, the following assumptions and criteria are ~~to be~~ used in accumulating outage data for standardizing reliability measurements:

- A. Customer Equipment Outages ~~shall be~~ are excluded from the calculation of SAIDI, SAIFI, and CAIDI;
- B. Planned outages ~~shall be~~ are excluded from the calculation of SAIDI, SAIFI, and CAIDI;

- C. Excludable Major Events ~~shall be~~are excluded from the calculation of SAIDI, SAIFI, and CAIDI;
- D. Momentary Outages ~~shall be~~are excluded from the calculation of SAIDI, SAIFI, and CAIDI;
- E. The beginning of an outage ~~shall be~~is recorded at the earlier of an automatic alarm or the first report of no power;
- F. The end of an outage ~~shall be~~is recorded at that point that power to customers is restored;
- G. Outages involving a primary distribution circuit ~~shall be~~are included in the calculation of SAIDI, SAIFI, and CAIDI. Outages that do not involve a primary distribution circuit (i.e., secondary, line transformer only or service only) ~~shall be~~are not ~~be~~ included in the standardized indices.
- H. Where only part of a circuit experiences an outage, the number of customers affected ~~shall be~~are estimated, unless an actual count is available. When power is partially restored, the number of customers restored also ~~shall be~~is estimated.
- I. When customers lose power as a result of the process of restoring power (such as from switching operations and fault isolation), the duration of these additional outages ~~shall be~~is included, but the additional number of interruptions ~~shall not~~are be included in the calculation.

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## VI. RELIABILITY AND SAFETY PERFORMANCE MEASURES

### A. Electric Reliability

~~FG&E Each electric distribution company shall measures SAIDI and SAIFI on an annual basis in accordance with Section V and compares its performance following the implementation of the PBR Plan to a benchmark established by Section I.C. SAIDI and SAIFI shall be performance measures subject to a revenue penalty in Section VII beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan. Notwithstanding these provisions, to the extent that an electric distribution company measures SAIDI and SAIFI in a manner inconsistent with the method in Section V, such Company may measure SAIDI and SAIFI consistent with its historic method; however, a Company that chooses to use its own historic method shall:~~

- ~~(1) demonstrate why it cannot reasonably convert the data to the method in Section V;~~
- ~~(2) calculate the historic average for benchmarking using its same historic method for purposes of Section VII; and~~
- ~~(3) in addition to reporting SAIDI and SAIFI using its own historic method, report all SAIDI and SAIFI data consistent with the method in Section V. These data will not be used in the calculation of revenue penalties in Section VII.~~

### B. Response to Odor Calls

~~FG&E Each gas distribution Company shall responds to 95 percent of all Class I and Class II odor calls in one hour or less as required by the Department-established performance standard. In order to ensure compliance with this standard, Response to Odor Calls shall be is a performance measure subject to a revenue penalty in Section VII beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.~~

### C. Lost Work Time Accident Rate

~~FG&E Each Company shall measures annually its Lost Work Time Accident Rate. The Lost Work Time Accident Rate shall be is a performance measure subject to a revenue~~

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penalty in Section VII beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

## VII. REVENUE PENALTIES AND PENALTY OFFSETS

### A. Applicability

The revenue penalty for the performance measures set forth in above in Sections II, III, and VI, except for Section VI.B, shall be determined in accordance with the penalty formula in Section VII.B. If ~~FG&E's Company's~~ annual performance for a performance measure falls within or is equal to one standard deviation from the benchmark, no revenue penalty nor penalty offset shall be imposed for that measure. If ~~FG&E's Company's~~ annual performance for a measure exceeds one standard deviation up to two standard deviations (to the closest tenth of a decimal point) above the benchmark, it will be subject to the revenue penalty shown in Section VII.B.

If ~~FG&E's Company's~~ annual performance for a performance measure exceeds two standard deviations above the benchmark in any year, then the Department may open a formal investigation as to the reasons for the ~~Company's~~ poor performance.

Penalty offsets are calculated in a similar fashion to revenue penalties. If ~~FG&E's Company's~~ annual performance for a performance measure falls within or is equal to one standard deviation below the benchmark, no revenue offset is achieved. If ~~FG&E's Company's~~ annual performance is below one standard deviation (to the closest tenth of a decimal point) below the benchmark, it will earn a penalty offset. If ~~FG&E's Company's~~ annual performance falls below two standard deviations in performance, the penalty offset is capped at the level associated with two standard deviations.

Penalty offsets may only be used to offset revenue penalties in the year they occur. Penalty offsets have no value other than to offset revenue penalties. Penalty offsets acquired on any performance measure may be used to offset revenue penalties on any other performance measure, except Response to Odor Calls. Superior performance on Response to Odor Calls may be used as an offset for deficient performance in other service quality measures.

The revenue penalty for Section VI.B shall be determined in accordance with the penalty

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formula in Section VII.C. If ~~FG&E's Company's~~ annual performance for this measure equals or falls below 91 percent, then the Department may ~~open a formal investigation as to the reasons for the Company's poor performance~~ initiate an investigation.

#### B. Penalty and Penalty Offset Formulas

The revenue penalty formula for all performance measures (except for the measure in Section VI.B) shall be:

$$\text{Penalty}_M = [0.25 * \frac{(\text{Observed Result} - \text{Historical Average Result})^2}{\text{Standard Deviation}}] * \text{Maximum Penalty}$$

If:  $(\text{Observed Result} - \text{Historical Average Result})$  is a positive value.

The penalty offset ~~penalty~~ formula for all performance measures (except for the measure in Section VI. B) shall be:

$$\text{Offset}_M = [0.25 * \frac{(\text{Observed Result} - \text{Historical Average Result})^2}{\text{Standard Deviation}}] * \text{Maximum Offset}$$

If:  $(\text{Observed Result} - \text{Historical Average Result})$  is a negative value.

Where:

$\text{Penalty}_M$  = revenue penalty applied to performance measure M;

$\text{Offset}_M$  = penalty offset applied to performance measure M;

Observed Result = the average actual performance measure achieved in year<sub>y</sub>, rounded to the applicable decimal place as specified for each measure in Section VIII.A;

Historical Average Result = the average historical actual result, based on an arithmetic average of the previous years<sub>a..x</sub> of historic data, rounded to the applicable decimal



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place as specified for each benchmark in Section VIII.C;

Standard Deviation = standard deviation of the historical average result; and

Maximum Penalty =  $(PCL_M) * (AR * 0.02 - CP)$

Maximum Offset =  $(PCL_M) * (AR * 0.02 - CP)$

Where:

$PCL_M$  = Performance category liability for the measure expressed as a percentage (derived from Section VII. D); and

$AR$  = ~~Annual Transmission and Distribution Revenues of FG&E Company~~ for the applicable year.

$CP$  = Customer payments credited during the applicable year under XI. Customer Service Guarantees.

C. Penalty and Penalty Offset Formulas for Class I and Class II Odor Calls

The revenue penalty formula for the performance measure set forth in Section VI.B shall be:

Class I and II Odor Call Penalty = Penalty Factor \* Maximum Penalty

Where:

Penalty Factor is derived from Table PF, below:

**Table PF**

Penalty  
Factor

Calculation

.25

when PP-OR = 1 percent

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.50	when PP-OR = 2 percent
.75	when PP-OR = 3 percent
1.00	when PP-OR = 4 percent or more

The penalty offset formula for the performance measure set forth in Section VI.B shall be:

Class I and II Odor Call Offset = Offset Factor\*Maximum Offset

Where:

Offset Factor is derived from Table OF, below:

**Table OF**

<u>Offset</u>	
<u>Factor</u>	<u>Calculation</u>
<u>.25</u>	<u>when PP-OR = -1 percent</u>
<u>.50</u>	<u>when PP-OR = -2 percent</u>
<u>.75</u>	<u>when PP-OR = -3 percent</u>
<u>1.00</u>	<u>when PP-OR = -4 percent or less</u>

Where:

PP = 95 percent Fixed Target Benchmark

OR = Observed percentage of Class I and Class II  
Odor Calls actually responded to within 60 minutes  
achieved in year<sub>y</sub>, rounded to the nearest  
percentage point; and

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$$\text{Maximum Penalty} = (\text{PCL}) * (\text{AR} * 0.02 - \text{CP})$$

$$\text{Maximum Offset} = (\text{PCL}) * (\text{AR} * 0.02 - \text{CP})$$

Where:

PCL = Performance category liability for the Class I & II Odor Calls measure expressed as a percentage (derived from Section VII. D); and

AR = ~~Annual Transmission and Distribution Revenues of FG&Ea Company~~ for the applicable year.

CP = Customer payments credited during the applicable year under XI. Customer Service Guarantees.

~~Attachment 1~~D. Apportionment of Penalty Among Performance Measures

Revenue penalties shall be apportioned among the various performance measures as follows:

Safety and Reliability

SAIDI	22.5 percent (FG&E's Electric Division <del>electric distribution companies only</del> )
SAIFI	22.5 percent (FG&E's Electric Division <del>electric distribution companies only</del> )
Class I & II Odor Calls	45.0 percent (FG&E's Gas Division <del>gas distribution companies only</del> )
Lost Work-Time Accident Rate	10.0 percent

Customer Service and Billing

Telephone Answering Rate	12.5 percent
Service Appointments Met	12.5 percent
On-Cycle Meter Readings	10.0 percent

Consumer Division Statistics

Consumer Division Cases	5.0 percent
Billing Adjustments	5.0 percent

VIII. REPORTING REQUIREMENTSA. Reliability, Line Loss, and Safety Indices and Rates

~~FG&E Each Company shall~~ reports on an annual basis SAIDI, SAIFI, CAIDI, Lost Work Time Accident Rate, Electric Distribution Line Loss, Unaccounted-for Gas, Restricted Work Day Rate, and damage to ~~FG&E company~~ property, and percentage of all Class I and Class II odor calls responded to in one hour or less ("Response to Odor Calls"). These reports ~~shall be~~ submitted in accordance with Section IX below.

CAIDI and SAIDI ~~shall be~~ reported in terms of minutes and ~~shall be~~ measured and reported to the nearest 100<sup>th</sup> of a minute. SAIFI ~~shall be~~ reported to the nearest 1000<sup>th</sup> of a reported outage. The Lost Work Time Accident Rate ~~shall be~~ reported to the

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nearest 100<sup>th</sup> of an accident. Restricted Work Day Rate ~~shall be~~ reported to the nearest 100<sup>th</sup> of a case. Electric Distribution Line Loss ~~shall be~~ reported to the nearest 10<sup>th</sup> of a percentage point. Unaccounted-for Gas ~~shall be~~ reported to the nearest 100<sup>th</sup> of a percentage point. The Customer Service ~~Consumer~~ and Billing Measures ~~shall be~~ reported to the nearest 10<sup>th</sup> of a percentage point. The Class I and Class II odor calls ~~shall be~~ reported to the nearest percentage point.

~~For the annual reports on electric distribution line loss, each electric distribution company shall provide sufficient~~ Substantiation of:

- (1) ~~its~~ FG&E's Electric Distribution Line Loss value,
- (2) the accompanying adjustments that were made to standardize the value to specific reference conditions, and
- (3) the specific reference conditions.

are reviewable as part of FG&E's annual reports on electric distribution line loss.

Property damage reports relating to incidents involving property of FG&E's electric division (in amounts greater than \$50,000 per incident) shall be filed annually. ~~For the annual reports on damage to company property, each electric distribution company shall file annually property damage reports on incidents involving property damage of the Company in excess of \$50,000 per incident that is attributed to Company owned facilities. A report shall be submitted to the Department within 48 hours of the incident and shall include the same information as that submitted for accidents, as described in this Section VIII.I.~~

#### B. Past Reliability and Safety Performance Data

~~FG&E~~ ~~Each electric distribution company shall~~ reports the Lost Work Time Accident Rate data from the past ten years in the same fashion as in Section VIII.A. ~~FG&E~~ ~~Each electric distribution company shall~~ reports SAIDI and SAIFI data from the past ~~five~~ ten years in the same fashion as in Section VIII.A. ~~Each electric distribution company shall use its best efforts to standardize~~ FG&E's SAIDI and SAIFI historical data has been standardized (consistent with the method in Section V). The SAIDI, SAIFI, and Lost Work Time Accident Rate data shall be ~~provided in each company's first annual report submitted~~ filed annually in accordance with Section IX below. Accordingly,

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~~FG&E's~~ Each company's first annual report will ~~should~~ describe any limitations in data that affect its standardization of SAIDI and SAIFI, and shall provide FG&E's best estimate of the statistical error inherent in the standardized indices, to the extent such error is identified.

C. Benchmarks

~~FG&E~~ Each Company ~~shall provides~~ the supporting calculations that were used in determining the standard deviation and benchmark values. SAIDI ~~shall be~~ reported in terms of minutes and shall be measured and reported to the nearest 100<sup>th</sup> of a minute. SAIFI ~~shall be~~ reported to the nearest 1000<sup>th</sup> of a reported outage. The Lost Work Time Accident Rate ~~shall be~~ reported to the nearest 100<sup>th</sup> of an accident. The ~~Customer Service~~ Consumer and Billing standards ~~shall be~~ are reported to the nearest 10<sup>th</sup> of a percentage point. The reports ~~shall be~~ are submitted in accordance with Section IX below.

Lost Work Time Accident Rate performance standards, Customer Service and Billing performance standards, and Customer Satisfaction performance standards ~~Each Company shall report on an annual basis the Lost Work Time Accident Rate and the Consumer and Billing performance standards and benchmarks that were that were determined in accordance with Sections II, III, and VI, above are reported annually.~~ ~~Each electric distribution Company shall report on an annual basis the SAIDI and SAIFI performance standards and benchmarks that were determined in accordance with Section VI, above, are reported annually.~~

FG&E's standard deviation, benchmark values, and supporting calculations are included in Appendix A.

D. Annual Major Outage Events

~~FG&E~~ Each electric distribution company ~~shall identifies~~ and reports on an annual basis the outages that are considered Excludable Major Events. For each major event excludable under the standard above ~~(or excluded using a company's historic method),~~ ~~FG&E~~ Each electric distribution ~~shall reports~~ the total number of customers affected, the service area affected, the number of customers without service at periodic intervals, the time frame of longest customer interruption, and the number of crews used to restore

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service on a per shift basis. In addition, ~~the~~ FG&E's report shall include FG&E's ~~particular electric distribution company's policy on tree trimming, including its tree trimming cycle, inspection procedures, and typical minimum vegetation clearance requirement from electric lines. These reports shall be~~ submitted in accordance with Section IX, below.

E. Capital Expenditure Information

~~Each Company shall report on an annual basis the~~ All capital investment approved and capital investment completed in FG&E's ~~the company's transmission and distribution infrastructure to ensure delivery of reliable electricity and gas is reported annually by FG&E. This report shall include a list of its major capital investment projects that relate to maintain transmission and distribution reliability and a summary description of each project. The summary shall include a list and location of each transmission and distribution facility that was modified, upgraded, replaced, and/or constructed as well as the costs and scope of work involved in the facility modification, upgrade, replacement, and/or construction.~~

~~FG&E Each Company shall~~ reports the same capital expenditure data from the ten most recent years in the same fashion as in the previous paragraph. FG&E will provide this ~~The data shall be provided in each company's~~ its first annual report.

The reports ~~are to~~ shall be submitted in accordance with Section IX below.

F. Spare Component and Acquisition Inventory Policy and Practice

~~FG&E's Each Company shall report on an annual basis its policy for identifying, acquiring, and stocking critical spare components for its distribution and transmission system will be reported on an annual basis. FG&E's Each Company's first annual report shall will address how this policy has changed or evolved over the past 10 years. The reports shall are to be submitted in accordance with Section IX below.~~

G. Poor Performing Circuits

~~FG&E's experience with Each Company shall identify and report on an annual basis its poor performing circuits will be identified and reported on an annual basis. FG&E's~~

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The report on these poor performing circuits ~~shall~~will include the following information:

- (1) the feeder or circuit identification number;
- (2) the feeder or circuit location;
- (3) the reason(s) why the circuits performed poorly during the reporting year;
- (4) the number of years that the circuit(s) performed poorly;
- (5) the steps that are being considered and/or have been implemented to improve the reliability of these circuits; and
- (6) the SAIDI or SAIFI value for the specific circuit(s).

The reports ~~are to~~shall be submitted in accordance with Section IX below.

#### H. Electric Service Outages

~~FG&E Each electric distribution company shall continue to report~~ the distribution and transmission outages consistent with the Department's Outage and Accident Reporting Procedures (see Outage Reporting Protocol Letter, dated Aug. 24, 2001). ~~These standards supersede previous Outage and Accident Reporting Procedures.~~

~~Each electric distribution company shall report every distribution and transmission outage that occurs within or impacts its service territory. Each electric distribution company shall report to the Department, within a one hour period from the beginning of the outage, every outage that results in 5,000 or more customer outage hours or that results in a service interruption to a high profile customer. (The report shall be revised to reflect updated information about the outage.) All other outage shall be reported to the Department within a 24 hour period from the beginning of the outage.~~

~~The reports shall include the following information:~~

- ~~(1) date of the outage;~~
- ~~(2) location of the outage (by providing town and street(s) location);~~
- ~~(3) nature or cause of the outage;~~
- ~~(4) number of customers affected;~~
- ~~(5) time outage commenced and time service was/will be restored;~~



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- ~~(6) duration of the outage;~~
- ~~(7) number of customer outage hours;~~
- ~~(8) feeder or circuit number;~~
- ~~(9) district or division where outage occurred;~~
- ~~(10) identification of overhead or underground line where fault or outage occurred;~~
- ~~(11) the name and telephone number of a utility employee who may be contacted about the outage;~~
- ~~(12) approximate number of crew(s) involved in the power restoration; and~~
- ~~(13) whether the outage is considered an Excludable Major Event.~~

~~These reports shall be submitted in accordance with Section X below.~~

#### I. Other Safety Performance Measures

In compliance with the requirements of G.L. c. 164, § 95 and the Department's August 24, 2001 Outage Reporting Protocol Letter, FG&E each Company shall reports to the Department within a 24-hour period of an accident the following information:

- (1) time and date of incident;
- (2) time and date of the notice to the Department;
- (3) location of the incident;
- (4) a detailed description of the accident including information about fatalities, injuries, facilities and third-party property damage; and
- (5) the name and telephone number of a FG&E utility employee who may be contacted about the accident.

~~These standards supercede previous Outage and Accident Reporting Procedures.~~

~~These reports shall be submitted in accordance with Section X.~~

#### IX. SUBMITTING ANNUAL REPORTS TO THE DEPARTMENT

FG&E will file each ~~The annual reports described previously shall be submitted to with~~ the Department by March 1 of each year, reflecting the data from the previous year(s). The annual report and shall will be submitted in the following manner:

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- A. the original to Secretary, Department of Telecommunications and Energy, One South Station, Boston, Massachusetts 02110;
- B. one copy to the Electric Power Division Director, Department of Telecommunications and Energy, One South Station, Boston, Massachusetts 02110;
- C. one copy to the Rates and Revenues Division Director, Department of Telecommunications and Energy, One South Station, Boston, Massachusetts, 02110;
- D. one copy of the report to the Consumer Division Director, Department of Telecommunications and Energy, One South Station, Boston Massachusetts 02110; and
- E. an electronic copy of the report to the Department, by one of two means:
  - (1) by e-mail attachment to [dte.efiling@state.ma.us](mailto:dte.efiling@state.ma.us); or
  - (2) on a 3.5" floppy diskette, IBM-compatible format to the Director of Electric Power Division, Department of Telecommunications and Energy, One South Station, Boston Massachusetts 02110. The text of the e-mail or the diskette label must specify:
    - (1) an easily identifiable case caption;
    - (2) docket number;
    - (3) name of the person or Company submitting the filing, and
    - (4) a brief descriptive title of document (e.g., comments or petition to intervene). The electronic filing should also include the name, title and phone number of a person to contact in the event of questions about the filing. Text responses should be written in either Word Perfect (naming the document with a ".wpd" suffix) or in Microsoft Word, (naming the document with a ".doc" suffix). Data or spreadsheet responses should be compatible with Microsoft Excel.

X. SUBMITTING OUTAGE AND OTHER SAFETY PERFORMANCE MEASURE REPORTS TO THE DEPARTMENT

~~The reports required by these standards shall be submitted to the Department in the following manner:~~

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~~A. on line through a Department secured website. If website access is unavailable, then an electronic copy of the report shall be submitted to the Department, by using one of the following methods: (1) by e-mail attachment to [etc.filing@state.ma.us](mailto:etc.filing@state.ma.us); or (2) on a 3.5" floppy diskette, IBM compatible format, to the Director of Electric Power Division, Department of Telecommunications and Energy, One South Station, Boston Massachusetts 02110. The text of the e-mail or the diskette label must specify: (1) an easily identifiable case caption; (2) docket number; (3) name of the person or Company submitting the filing, and (4) a brief descriptive title of document (e.g., comment or petition to intervene). The electronic filing should also include the name, title and phone number of a person to contact in the event of question about the filing. Text responses should be written in either Word Perfect (naming the document with a ".wpd" suffix) or in Microsoft Word, (naming the document with a ".doc" suffix). Data or spreadsheet responses should be compatible with Microsoft Excel; and.~~

~~B. one copy of the report submitted to the Consumer Division Director, Department of Telecommunications and Energy, One South Station, Boston Massachusetts 02110.~~

~~For electric service outages that are required to be reported within a one hour period as described in Section VIII.H, each Company shall, in addition to submitting a written report, contact by telephone the Electric Power Division Director, Consumer Division Director, Executive Director, or one of the commissioners of the Department to convey the information surrounding the outage.~~

#### XI. BILLING INFORMATION

Upon approval by the Department, FG&E will place the following ~~Each Company is directed to submit language, for approval by the Department, to be placed on the back~~ side of customer bills, which notifies customers of (a) their ability to contact the Department regarding service quality complaints or questions, and (b) the Department's website address ([www.magnet.state.ma.us/dpu](http://www.magnet.state.ma.us/dpu)):-

*If you are not satisfied or have questions regarding our service quality, please call our 24 hour Customer Service office at 888-301-7700. If you remain unsatisfied, you may*

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also contact the Department of Telecommunications and Energy by:

- Telephone: 1-800-392-6066 or 1-617-727-3531
- Web Site Address: <http://www.magnet.state.ma.us/dpu/>
- Writing: Department of Telecommunications and Energy  
Consumer Division  
One South Station  
Boston, MA 02110

#### XI. CUSTOMER SERVICE GUARANTEES

FG&E will provide customer service guarantees for two customer service measures: (1) failure to keep service appointments, and (2) lack of notification of planned service interruptions. FG&E guarantees that if it fails to keep a service appointment or it fails to notify a customer of a planned service interruption, it will credit the customer \$25. Any customer payments credited during the applicable year will be deducted from the maximum penalty and maximum offset formulas provided in Section VII, beginning at the review following the first full calendar year of FG&E performance under a Department-approved performance-based rate plan.

#### XII. GENERAL RESERVATION

The Department retains the discretion to waive or depart from any provision of these guidelines FG&E's Service Quality Plan as the interests of fairness may require to the full extent such discretion is granted under law.



The undersigned Subscriber herein engages Marshall & Swift Boeckh, its affiliates, successors, and assigns (herein referred to as "MS/B") to furnish the products and/or services specified herein on the terms and subject to the conditions found on the reverse side of this Agreement.

**1. Service Description:**

- (a) **MS/B Residential "Total Component" Valuation Software:** Under terms of this License Agreement, Subscriber shall have use of the **MS/B Residential Component Technology** estimating software (referred to as RCT) with "total component" building cost database for use by Subscriber's authorized underwriting and agency users. RCT estimating software is provided in order for Subscriber's underwriting department and insurance agents to be able to calculate estimates of replacement cost and/or actual cash value for residential building properties found in the U.S. market.
- (b) **MS/B XNet Service:** Under terms of this License Agreement, MS/B shall also provide to Subscriber's underwriting staff and insurance agents that are authorized by Subscriber:
- Unlimited access and use of RCT estimating software that MS/B shall install for Subscriber on a proprietary **MS/B Extra-net Web Site (herein referred to as MS/B XNet).**
  - A dedicated XNet site for Subscriber's proprietary use as part of Subscriber's insurance business.
  - The ability to generate estimates of building cost in an "interactive" (one at a time (immediate) processing), or "batch" (group processing of estimates at one time) mode as may be described herein.
  - Other general capabilities described below or elsewhere in this License Agreement:
    - Ability to store ("archive") all of the input sent to the system in order to be able to produce estimates of replacement cost again in the future and or archive building characteristics data on the site for continuous access and review.
    - Ability to print RCT standard estimates of replacement cost and/or actual cash value as well as archived data stored at the XNet site.
    - Link to MS/B "outsourcing" programs of *Tele-estimating™* and/or field inspections so that data obtained for Subscriber in these programs can also be saved at Subscriber's same dedicated XNet site.
    - Ability for Subscriber's authorized users to generate estimates of replacement cost and also make changes to same (as described herein).
    - All archiving and retrieval of estimates including up to 5 iterations of each estimate.
    - Secure, redundant hosting with disaster recovery.
    - Daily back up of the XNet site.
    - Security between the end users and the XNet server using either SSL or NT domain security.
    - Quarterly updates to the RCT building cost database made automatically by MS/B at the XNet site within 45 days of the close of each calendar quarter.
- (c) **Web-based Training:** Training by MS/B representatives in the use of the XNet or RCT programs is provided to Subscriber through use of MS/B show-ware Web-based training technology. As many as 14 seats can be accommodated simultaneously in each Web session. Up to fourteen (14) Web-based training sessions or "seats" are provided to Subscriber by MS/B at no cost to Subscriber the first year of this Agreement. Thereafter, Web-based training is provided at \$50 per seat per session. Additional on site training is available at the per diem rate of \$900 per day, plus reasonable travel expenses (if travel is needed).
- (d) **800 Help Line Support:** Unlimited access to MS/B 800 line help is provided to Subscriber for the duration of this Agreement or so long as this Agreement is in effect and current. MS/B will provide the 800 line number support between the hours of 8:30 a.m. and 6:00 p.m. EST, Monday through Friday excluding National Holidays.
- (e) Additional terms and conditions of this License Agreement are found on the reverse side of page 1 of this Agreement as well as in the Addendum to Agreement (attached).

**SUBSCRIBER: SAFETY INSURANCE COMPANY**  
**ADDRESS: 20 CUSTOM HOUSE STREET**  
**Boston, MA 02110**

Enter Billing Address to below if different from Subscriber Address  
Attention: \_\_\_\_\_

**SIGNATURE** \_\_\_\_\_

**TITLE** \_\_\_\_\_

**DATE** \_\_\_\_\_

*FOR INTERNAL USE ONLY*

☒ NEW ☐ RENEWAL ☐ REPLACES Business Classification **Agency**

Telephone: (800)809-0016

Date: October 2, 2001

MS/B Manager: Walt Swistak

## **ATTACHMENT 4**

# **Fitchburg Gas and Electric Light Company**

## **Appendix A**

### **Benchmarks, Standard Deviations, and Supporting Calculations**

- A. Telephone Service Factor**
- B. Service Appointments Met As Scheduled**
- C. On-Cycle Meter Readings**
- D. Consumer Division Cases**
- E. Billing Adjustments**
- F. SAIDI**
- G. SAIFI**
- H. Response to Odor Calls**
- I. Lost Work-Time Accident Rate**

## A. Telephone Service Factor

### Emergency Call Data - Not Available Prior to 2001

#### Non-Emergency Calls - Gas & Electric Divisions

<b>Benchmark</b>	46.5% handled within 20 seconds
<b>Historical Data Used to Set Benchmark</b>	2000: 51.5% 1999: 44.9% 1998: 43.0%
<b>Average Standard Deviation Calculation Penalty Range Offset Range</b>	46.5% handled within 20 seconds 4.5% handled within 20 seconds 42.0% to 37.5% 51.0% to 55.5%

Note: Data provided to the nearest 10<sup>th</sup> of a percent, in accordance with Section VIII A.



**B. Service Appointments Met As Scheduled**

**Data is Not Yet Available**

## C. On-Cycle Meter Reading

### Electric Division

<b>Benchmark</b>	92.7%
<b>Historical Data Used to Set Benchmark</b>	2000: 93.9% 1999: 94.9% 1998: 89.3%
<b>Average Standard Deviation Calculation Penalty Range Offset Range</b>	92.7% 3.0% 89.7% to 86.7% 95.7% to 98.7%

Note: Data provided to the nearest 10<sup>th</sup> of a percent, in accordance with Section VIII A.

### Gas Division

<b>Benchmark</b>	88.4%
<b>Historical Data Used to Set Benchmark</b>	2000: 90.9% 1999: 90.6% 1998: 83.6%
<b>Average Standard Deviation Calculation Penalty Range Offset Range</b>	88.4% 4.1% 84.3% to 80.2% 92.5% to 96.6%

Note: Data provided to the nearest 10<sup>th</sup> of a percent, in accordance with Section VIII A.

## D. Consumer Division Cases

### Electric & Gas Divisions

<b>Benchmark</b>	62.1	Cases
<b>Historical Data</b>	2000: 63.0	Cases
<b>Used to Set Benchmark</b>	1999: 78.0	Cases
	1998: 94.0	Cases
	1997: 54.0	Cases
	1996: 77.0	Cases
	1995: 47.0	Cases
	1994: 56.0	Cases
	1993: 28.0	Cases
<b>Average</b>	62.1	Cases
<b>Standard Deviation Calculation</b>	20.7	Cases
<b>Penalty Range</b>	82.8 to 103.4	Cases
<b>Offset Range</b>	41.5 to 20.8	Cases

Note: Data provided to the nearest 10<sup>th</sup> of a case.

## E. Billing Adjustments

### Electric Division

<b>Benchmark</b>	\$16.31	per 1,000 Customers
<b>Historical Data Used to Set Benchmark</b>	2000: \$0	per 1,000 Customers
	1999: \$0	per 1,000 Customers
	1998: \$5.63	per 1,000 Customers
	1997: \$0	per 1,000 Customers
	1996: \$0	per 1,000 Customers
	1995: \$0	per 1,000 Customers
	1994: \$108.53	per 1,000 Customers
<b>Average</b>	\$16.31	per 1,000 Customers
<b>Standard Deviation Calculation</b>	\$40.72	per 1,000 Customers
<b>Penalty Range</b>	\$57.03 to \$97.75	
<b>Offset Range</b>	Not Applicable*	

Note: Data provided to the nearest 100<sup>th</sup> of a dollar.

\*Offsets are not applicable at this time because one standard deviation below the average is in the negative range. Since the deadband alone brings this value below zero, no offset is applicable at this time.

### Gas Division

<b>Benchmark</b>	\$50.15	per 1,000 Customers
<b>Historical Data Used to Set Benchmark</b>	2000: \$24.52	per 1,000 Customers
	1999: \$71.19	per 1,000 Customers
	1998: \$255.33	per 1,000 Customers
	1997: \$0	per 1,000 Customers
	1996: \$0	per 1,000 Customers
	1995: \$0	per 1,000 Customers
	1994: \$0	per 1,000 Customers
<b>Average</b>	\$50.15	per 1,000 Customers
<b>Standard Deviation Calculation</b>	\$94.21	per 1,000 Customers
<b>Penalty Range</b>	\$144.36 to \$238.57	
<b>Offset Range</b>	Not Applicable*	

Note: Data provided to the nearest 100<sup>th</sup> of a dollar.

\*Offsets are not applicable at this time because one standard deviation below the average is in the negative range. Since the deadband alone brings this value below zero, no offset is applicable at this time.

## F. System Average Interruption Duration Index (SAIDI)

### Electric Division

<b>Benchmark</b>	131.54	minutes
<b>Historical Data</b>	2000: 116.56	minutes
<b>Used to Set Benchmark</b>	1999: 160.88	minutes
	1998: 116.09	minutes
	1997: 139.45	minutes
	1996: 124.70	minutes
<b>Average</b>	131.54	minutes
<b>Standard Deviation Calculation</b>	18.93	minutes
<b>Penalty Range</b>	150.47 to 169.40	minutes
<b>Offset Range</b>	112.61 to 93.68	minutes

Note: Data provided to the nearest 100<sup>th</sup> of a minute, in accordance with Section VIII A.

## G. System Average Interruption Frequency Index (SAIFI)

### Electric Division

<b>Benchmark</b>	1.677	interruptions
<b>Historical Data Used to Set Benchmark</b>	2000: 1.362 1999: 2.003 1998: 1.341 1997: 1.896 1996: 1.782	interruptions interruptions interruptions interruptions interruptions
<b>Average</b>	1.677	interruptions
<b>Standard Deviation Calculation</b>	0.307	interruptions
<b>Penalty Range</b>	1.984 to 2.291	interruptions
<b>Offset Range</b>	1.370 to 1.063	interruptions

Note: Data provided to the nearest 1000<sup>th</sup> of a reported outage, in accordance with Section VIII A.

## H. Response to Odor Calls

### Gas Division

<b>Benchmark</b>	95%
<b>Historical Data</b>	2000: 99% 1999: 99% 1998: 96%
<b>Average</b>	98%
<b>Penalty Range in 1% Increments</b>	91% to 94%
<b>Offset Range in 1% Increments</b>	96% to 99%

Note: Data provided to the nearest percentage point, in accordance with Section VIII A.

# **I. Lost Work Time Accident Rate Data Sheet**

## **Electric & Gas Divisions**

<b>Benchmark</b>	10.30 incidents per 100 FTEs
<b>Historical Data Used to Set Benchmark</b>	2000: 7.44 incidents per 100 FTEs 1999: 7.34 incidents per 100 FTEs 1998: 11.83 incidents per 100 FTEs 1997: 9.91 incidents per 100 FTEs 1996: 13.99 incidents per 100 FTEs 1995: 12.78 incidents per 100 FTEs 1994: 10.87 incidents per 100 FTEs 1993: 13.66 incidents per 100 FTEs 1992: 5.29 incidents per 100 FTEs 1991: 9.87 incidents per 100 FTEs
<b>Average</b>	10.30 incidents per 100 FTEs
<b>Standard Deviation Calculation</b>	2.91 incidents per 100 FTEs
<b>Penalty Range</b>	13.21 to 16.12
<b>Offset Range</b>	7.39 to 4.48

Note: Data provided to the nearest 100<sup>th</sup> of an accident, in accordance with Section VIII A.



## **ATTACHMENT 5**

# Fitchburg Gas and Electric Light Company

## Data Collection Process for Service Quality Measures

### Telephone Service Factor (Section II.A. of FG&E's Service Quality Plan)

#### Emergency Calls

As discussed further below, FG&E emergency calls are received either by the Unitil Customer Service Center, which staffs a 24-hour per-day, 7-day a week operation, or by the FG&E dispatch office which has a designated phone line for gas emergencies, also staffed 24-hours per-day, 7-days a week.<sup>1</sup> Customers calling the Unitil Customer Service Center are given two separate options to report either a gas-related emergency (such as a gas odor or gas leak call) or an electric-related emergency (such as wires down and burning, electrical fire, explosions, etc).

For gas emergency calls, upon the customer's selection for a gas-related emergency, the customer will be immediately routed to the FG&E dispatch office, where employee(s) are staffed to answer the emergency gas telephone lines.

For electric emergency calls, upon the customer's selection for an electric-related emergency, the customer will be immediately routed to a priority call queuing mechanism within the Customer Service Center. These calls receive priority status that places them first in line as opposed to the normal "first in – first served" environment. The next available Customer Service Representative then processes their call.

FG&E's response time to emergency calls are recorded using automated software systems. For gas emergency calls, a system was recently installed at FG&E and response time has been collected since September 1, 2001. For electric emergency calls, response time has been collected since September 17, 2001 using software at the Customer Service Center. Since response time to gas emergency calls are tracked at FG&E, and electric emergency response time is tracked at the Customer Service Center, FG&E is able to report data for its gas and electric divisions separately.

#### Non-Emergency Calls

Non-Emergency calls are received by the Customer Service Center which is staffed to respond to calls for FG&E and its two NH affiliates, Concord Electric

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<sup>1</sup> The Unitil Customer Service Center located in Concord, NH, handles calls for FG&E and Unitil's two NH distribution companies Concord Electric Company and Exeter & Hampton Electric Company.

Company and Exeter & Hampton Electric Company. All non-emergency calls are placed in a universal holding queue, as opposed to a queue dedicated to specific employees or company. Customer Service Representatives respond to calls for all three companies. Therefore, the response time, which is measured using software programs, reflects a combined response time. Response time for non-emergency calls at the Customer Service Center has been collected since April 1998, the date that the Customer Service Center began answering calls for FG&E.

**Service Appointments Met As Scheduled (Section II.B. of FG&E's Service Quality Plan)**

For FG&E's gas division, service appointments that are mutually agreed upon and require the presence of the customer include meter-on, meter-off, re-light, scheduled meter exchange, meter test, meter set or removal, new service installation, connect and reconnect service. Except for re-lights, the same service appointments apply to FG&E's electric division. Certain cases that do not require the presence of the customer will not be included in the measurement.

All of these service appointments, with the exception of new service installations and connect and reconnect service, are processed through FG&E's automated work order system. When a customer calls to request a service appointment, the Customer Service Representative creates a work order with the date that a service appointment is scheduled with a customer. The work order is then sent to FG&E's Operations Department for completion. The employee performing the work enters the date that the work is completed. The work completion date along with a description of the work is entered into the automated work order system.

This work order system is also used in scheduling work that does not require the presence of the customer such as meter re-reads, read-ins and read-outs for customer locations with outside meters. Therefore, the historical data for service appointments met as scheduled is not readily available. FG&E is currently working on a query of its database to retrieve the data back to January 2000 for those service appointments that require the presence of the customer. FG&E will submit this data in its March 1 annual report.

Historical data is not available for new service installations and connect and reconnect service since these were not processed through the automated work order system. In accordance with the Department's June 29, 2001 Order in D.T.E 99-84, FG&E will begin collecting this data January 1, 2002.

### **On-Cycle Meter Readings (Section II.C. of FG&E's Service Quality Plan)**

FG&E's Customer Information System ("CIS") provides the data to measure on-cycle meter readings. Bills issued to customers designating that the billed energy is based upon estimated energy use are excluded as on-cycle meter reads. Bills issued to customers that indicate energy consumption is based upon an obtained meter reading are included as on-cycle meter reads. The CIS system is specifically designed to track the number of estimated reads, actual reads and total scheduled reads, by route each month. The data is exported into a spreadsheet for analysis. The total number of bills issued to customers based upon actual meter readings divided by the total number of bills issued to customer determines the percentage of on-cycle meter readings. In accordance with Section II.C. of FG&E's Service Quality Plan, only residential and commercial accounts are included in the database.

FG&E has collected this data since 1998 and will report its data for its gas and electric divisions separately.

### **Consumer Surveys (Section III.C. of FG&E's Service Quality Plan)**

#### ***Customer Satisfaction Survey***

FG&E's Customer Satisfaction Survey is provided in Exh. FGE-TMB-6. FG&E designed this survey internally and it has been used since 1992 with some modifications made in recent years. The attached survey was specifically modified to change the scale from 1-7 and to incorporate the question "Overall, how satisfied are you with the service you are receiving from Unitil/Fitchburg Gas & Electric" in accordance with the Department's guidelines, adopted by FG&E in Section III.C. of FG&E's Service Quality Plan. FG&E incorporated these changes in its October mailing for its 2001 survey. FG&E's customer selection process and process to determine survey results are provided below.

#### **Customer Selection Process**

- 1) A work file is created on an annual basis from the CIS customer master file. The work file selects all active customers in a random order. The work file assigns customers a work record number based upon their position in which they were selected (i.e. Customer # 00001 – 25000). The selection process does not differentiate between gas or electric customers.

- 2) A program is then run against the file that randomly selects customers until the maximum predetermined threshold is obtained (6% residential).<sup>2</sup>
- 3) The random selection process is determined from the computer clock hh:mm:ss at the time the program is running. The customer, to be selected, is assigned a customer record number based on the last three digits of the clock in m:ss. (example, if the time is 16:05:01, the program would select customer number 501 in the work file.) Once the first customer is selected (i.e. # 501) the program will look for the next customer based on the last 3 digits of the time it is running (i.e. 6:13) and add that number to the previously selected customer number (i.e. 501 + 613 = customer # 1,114). The program would continue to search until the predetermined amount of customers is selected which may involve the program to start the loop at the beginning of the work file on multiple occasions.

#### Process to determine Survey Results

- 1) Returned surveys are first sorted by company and then by customer class (Residential, and Commercial and Industrial).<sup>3</sup>
- 2) All responses to all questions are entered into a Microsoft Access database by a select group of Customer Service Representatives as they are returned.
- 3) Customers have until November 30<sup>th</sup> to return their surveys (8 weeks to respond). Surveys received after November 30<sup>th</sup> are not included in the database.
- 4) The totals from the Access database are then exported to Microsoft Excel spreadsheets for analysis by the Customer Systems Analyst.
- 5) The spreadsheets are used to determine the percentage and numbers of customers that have responded to the surveys, as well as the percentage and number of customers that have responded to all questions with a satisfactory score.

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<sup>2</sup> The correct sample size depends upon three factors: (1) the level of confidence desired, (2) the variability in the population, and (3) the maximum allowable error. Making the following assumptions: (1) a 95% level of confidence, (2) no assumption about the variability in the population, and (3) a 5% maximum allowable error, and employing a standard statistical formula:  $n = [(1.96 * \sqrt{(0.5)*(0.5)}) / 0.05]^2$  yields a sample size of 385. Based on an FG&E total customer base of 28,479, 6% is equal to 1,709. And, based on past FG&E experience of an average response rate of 23%, 1,709 \* 23% yields an expected survey return of 393, slightly greater than the 385 required.

<sup>3</sup> FG&E and its two NH affiliates, Concord Electric Company and Exeter & Hampton Electric Company distribute these surveys. All surveys sent include a self addressed stamped envelope to Unitil's Customer Service Center in Concord, NH.

### ***Customer-Specific Survey***

FG&E's Customer Specific Survey is also provided in Exh. FGE-TMB-6. FG&E designed this survey internally and it has been used since 1999. Similar to the Customer Satisfaction Survey, FG&E has made specific modifications to comply with the Department's guidelines. The survey was modified to change the scale from 1-7 and to incorporate the question "How satisfied were you with the service you received from our Customer Service Department?" FG&E will incorporate the modified survey into its process beginning January 1, 2002 so that calendar year 2001 results are completed on a consistent basis. FG&E's customer selection process and process to determine survey results are provided below.

#### Customer Selection Process

- 1) A work file is created on a weekly basis from the Customer Information Service (CIS) customer master file. The work file selects all active customers that have a closed work order associated with their customer file within the last 5 business days. The selected customers are assigned a work record number based upon their position in which they were selected (i.e. Customer # 00001 – 25000).
- 2) Steps 2 & 3 for the Customer Selection Process discussed above are completed for this survey as well.<sup>4</sup>

#### Process to determine Survey Results

- 1) Returned surveys are first sorted by Unitil Service Corp. Administrative Support staff by company and then by customer class (Residential, and Commercial and Industrial).<sup>5</sup>
- 2) All responses to all questions are entered into a Microsoft Access database by the Administrative Support staff as they are returned.
- 3) The totals from the Access database are then exported to Microsoft Excel spreadsheets for analysis by the Customer Systems Analyst.
- 4) The spreadsheets are used to determine the percentage and numbers of customers that have responded to the surveys, as well as the percentage and number of customers that have responded to all questions with a satisfactory score.

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<sup>4</sup> FG&E will determine the representative sample based upon the total number of work orders generated within the time period.

<sup>5</sup> FG&E and its two NH affiliates, Concord Electric Company and Exeter & Hampton Electric Company distribute these surveys. All surveys sent include a self addressed stamped envelope to Unitil Service Corp. in Hampton, NH.

### **Electric Reliability - SAIDI & SAIFI (Section VI.A. of FG&E's Service Quality Plan)**

Reports of "no power" are initiated by one of the following: (a) customer telephone calls to the Unitil Customer Service Center, (b) by first indication of an interruption via a SCADA alarm, or (c) other means. A work crew is dispatched to investigate and perform service restoration. Information about the outage is recorded on a Trouble Interruption Report (TIR), which includes:

- Date and time of first call of no power,
- Date and time of restoration,
- Number of customers interrupted,
- Restoration sequence, if multiple steps are involved,
- Cause of outage, location, and device that cleared the problem,
- Other pertinent data on weather conditions, equipment involved, etc.

Information from TIRs is entered into a database. The Engineering Department analyzes the database on a monthly basis ensuring that outages are appropriately excluded and then calculates monthly and annual indices.

Since FG&E's historical data was not consistent with the guidelines set forth in V., FG&E has modified its reliability data to calculate indices consistent with these guidelines starting with calendar year 1996.

### **Odor Calls (Section VI.B. of FG&E's Service Quality Plan)**

As described above in Telephone Service Factor, odor calls are handled by FG&E's dispatch office. Calls are received on a direct line of FG&E designated for gas emergencies or may be routed to the dispatch office from Unitil's Customer Service Center. The gas service worker who responds to the call records the time of response on a system generated work order. The response time is then entered into a master spreadsheet that includes the response time on all calls.

FG&E has collected its odor call response time since October 1997.

### **Lost Work Time Accident Rate (Section VI.C of FG&E's Service Quality Plan)**

FG&E records the number of lost work time accidents and illnesses on the OSHA 200 LOG. This log is a record and categorization of recordable incidents per OSHA regulation. All recordable incidents, of which lost work time accidents are a subset, are required to be recorded on the OSHA 200 LOG, within 6 days of occurrence. The OSHA 200 LOG is kept and maintained on an annual basis.

FG&E's Lost Work Time Accident Rate is calculated based on the following formula:

<b>Incident Rate</b>	= (N/EH) x 200,000 where,
<b>N</b>	= number of lost work time injuries and illnesses, including cases involving days away from work, days of restricted work activity or, both,
<b>EH</b>	= total hours worked by all FG&E employees during the calendar year,
<b>200,000</b>	= base for 100 equivalent full time employees (FTEs) (working 40 hours per week, 50 weeks per year).

FG&E's data is maintained on a combined basis for its Gas and Electric divisions since many operations employees of FG&E engage in work activities that support both gas operations and electric operations.

FG&E has collected and measured the Lost Work Time Accident Rate for the ten most recent years of dating, starting in 1991.



## **ATTACHMENT 6**

# **Fitchburg Gas and Electric Light Company**

## **Customer Satisfaction and Customer-Specific Surveys**

<b><u>Survey</u></b>	<b><u>Page(s)</u></b>
<b>Customer Satisfaction Survey</b>	<b>2 - 5</b>
<b>Customer-Specific Survey</b>	<b>6</b>



# Unitil

Fitchburg Gas and  
Electric Light Company

October, 2001

**This is an important notice. Please have it translated.**  
**Estes es un aviso muy importante. Sirvase mandarle a traducir.**

Dear Customer:

Unitil/Fitchburg Gas and Electric Light Company is conducting a survey to gain a better understanding of how we're doing as your local utility company. The information you provide will tell us how well we're meeting your needs.

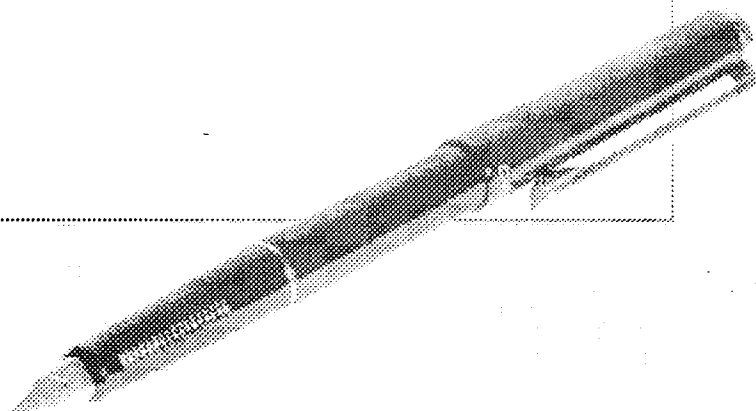
As one of our customers, you have been randomly selected to participate in this survey. Your answers will be used confidentially, in combination with answers from the other customers participating in the survey, to help us do a better job for you. Please help us by taking a moment to complete the survey on the following pages and return it in the enclosed, postage paid envelope within ten days.

If you have any questions about the survey, please contact our Customer Service Department at 1-888-201-7700. Thank you for your assistance and cooperation.

Sincerely,

Mark Lambert  
Director, Customer Service

5 McGuire Street  
Concord, NH 03301-4622





# Unitil

Fitchburg Gas and  
Electric Light Company

## Your Opinion, Please

On a scale of 1 to 7, where 1 is very dissatisfied and 7 is very satisfied, please rate our performance in the following areas:  
(circle the number)

	Very Dissatisfied						Very Satisfied	Doesn't Apply
Are we easy to do business with	1	2	3	4	5	6	7	*
Providing reliable electric service	1	2	3	4	5	6	7	*
Restoring electric service quickly following a power outage	1	2	3	4	5	6	7	*
Supplying electric service at fair and reasonable rates	1	2	3	4	5	6	7	*
Responding quickly to customers who are temporarily without gas service	1	2	3	4	5	6	7	*
Supplying gas service at fair and reasonable rates	1	2	3	4	5	6	7	*
Providing accurate meter reading and billing	1	2	3	4	5	6	7	*
Being active in local community organizations	1	2	3	4	5	6	7	*
Providing educational energy information to our customers	1	2	3	4	5	6	7	*
Overall, how satisfied are you with the service you are receiving from Unitil/Fitchburg Gas & Electric	1	2	3	4	5	6	7	*

## Your Opinion Counts

**URGENT!**  
Please Respond  
within 10 days!

1. Is the Unitil/FG&E bill easy to understand?  
☐ Yes ☐ No, why \_\_\_\_\_
2. Do you read the message printed on your monthly bill?  
☐ Always ☐ Sometimes  
☐ Seldom ☐ Never
3. Do you read the inserts included with your monthly bill?  
☐ Always ☐ Sometimes  
☐ Seldom ☐ Never
4. Have you telephoned us in the past year?  
☐ Yes, for what purpose  
☐ Billing inquiry  
☐ New or change in service  
☐ Service interruption  
☐ Payment plan  
☐ Other  
☐ No. Go to question #7.
5. Was the telephone answered in a timely manner?  
☐ Yes ☐ No
6. Were you satisfied with the response?  
☐ Yes ☐ No, please explain \_\_\_\_\_
7. Have you visited us in the past year?  
☐ Yes, for what purpose  
☐ Billing inquiry  
☐ New or change in service  
☐ Service interruption  
☐ Payment plan  
☐ Other  
☐ No. Go to question #10.
8. Were you served in a prompt and courteous manner?  
☐ Yes ☐ No, please explain \_\_\_\_\_
9. Were you satisfied with the service you received?  
☐ Yes ☐ No, please explain \_\_\_\_\_
10. Do we provide prompt courteous service when we come to your home?  
☐ Yes ☐ No ☐ N/A
11. Are you aware that you can call us 24-hours a day, 7 days a week?  
☐ Yes ☐ No
12. Are you aware that we offer a budget plan allowing you to pay fixed monthly payments?  
☐ Yes ☐ No
13. Have you visited our web site, [www.unitil.com](http://www.unitil.com)?  
☐ Yes, for what purpose \_\_\_\_\_  
☐ No
14. Based upon your perception of businesses in your local community, please name three businesses you would identify as "good corporate citizens."  
1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_

Please use the space on the back for any additional comments or suggestions

**Thank You For Participating In Our Survey!**



Fitchburg Gas and  
Electric Light Company

Do you have any additional comments or have any suggestions about any products or services that would interest you?

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

Would you like us to contact you regarding any aspect of this survey or any other issue? ☐ Yes ☐ No

□ □

Q. No.

**Your Name:** \_\_\_\_\_

Phone #: ( ) \_\_\_\_\_

Reason for Request: \_\_\_\_\_

**Thank You For Completing Our Survey!**



# Operations Service Survey

*In response to our recent service -----Please take a few minutes to evaluate our performance by completing the attached survey. Your response will help us to develop programs and enhance services to meet your needs and serve you better.*

*(please circle your answers)*

	Satisfaction Rating						
	Very Dissatisfied						Very Satisfied
Did we provide our services at a convenient time?	1	2	3	4	5	6	7
Did our response time meet your expectations?	1	2	3	4	5	6	7
Were we easy to do business with?	1	2	3	4	5	6	7
What is your overall satisfaction with our service?	1	2	3	4	5	6	7
<b><u>Your satisfaction with:</u></b>							
Our employee's professionalism	1	2	3	4	5	6	7 N/A
Our understanding of your needs	1	2	3	4	5	6	7 N/A
<b><u>Our communications with you:</u></b>							
How satisfied were you with the service you received from our Customer Service Department?	1	2	3	4	5	6	7 N/A
<b><u>Our response to your issues:</u></b>							
How do you compare the services we provide with other (non-utility) businesses?	1	2	3	4	5	6	7 N/A

If you had a choice would you still choose us?

Yes

No

Would you recommend our services to others?

Yes

No

Any additional comments or suggestions you may have to improve the services we provide, please complete below or contact our Customer Service Department at 1-800-582-7276.

*(If more space is needed, please use the back of the Survey form)*

Number of years as our customer \_\_\_\_\_

Additional service you would like us to offer \_\_\_\_\_

## OPTIONAL

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

WOULD YOU LIKE US TO CALL YOU?      yes      no

## **ATTACHMENT 7**



# Fitchburg Gas and Electric Light Company

## Workpapers Supporting Calendar Year Data For Service Quality Measures

<u>Workpapers</u>	<u>Page(s)</u>
Telephone Service Factor	2
On-Cycle Meter Readings	3 - 4
Consumer Division Cases	5 - 12
Billing Adjustments	13 - 20
SAIDI	21
SAIFI	21
Response to Odor Calls	22 - 24
Lost Work-Time Accident Rate	25

## Fitchburg Gas and Electric Light Company

### Non-Emergency Calls - Gas & Electric Divisions: 1998 - 2000

Month	Total # Non-Emergency Calls Received	Total # Non-Emergency Calls Answered within 20 seconds	% of Non-Emergency Calls Answered within 20 seconds
Jan-98			n/a
Feb-98			n/a
Mar-98			n/a
Apr-98	9,910	4,763	48.1%
May-98	8,430	4,122	48.9%
Jun-98	18,899	7,802	41.3%
Jul-98	16,497	7,033	42.6%
Aug-98	16,272	5,459	33.6%
Sep-98	16,479	4,395	26.7%
Oct-98	17,663	5,765	32.6%
Nov-98	14,527	8,710	60.0%
Dec-98	15,174	9,491	62.6%
Totals 98	133,851	57,540	43.0%
Jan-99	17,320	9,249	53.4%
Feb-99	13,406	7,120	53.1%
Mar-99	15,422	8,090	52.5%
Apr-99	17,727	6,894	38.9%
May-99	14,786	6,095	41.2%
Jun-99	16,946	5,326	31.4%
Jul-99	20,689	7,100	34.3%
Aug-99	15,710	8,064	51.3%
Sep-99	18,464	8,036	43.5%
Oct-99	16,285	7,053	43.3%
Nov-99	13,595	7,084	52.1%
Dec-99	14,898	7,504	50.4%
Totals 99	195,248	87,616	44.9%
Jan-00	13,707	7,442	54.3%
Feb-00	11,578	5,755	49.7%
Mar-00	14,428	9,521	66.0%
Apr-00	16,264	6,953	42.8%
May-00	17,249	7,420	43.0%
Jun-00	16,490	8,725	52.9%
Jul-00	14,228	7,051	49.6%
Aug-00	14,750	8,255	56.0%
Sep-00	14,801	7,460	50.4%
Oct-00	15,193	6,376	42.0%
Nov-00	13,078	6,623	50.6%
Dec-00	15,572	9,767	62.7%
Totals 00	177,338	91,348	51.5%

## Fitchburg Gas and Electric Light Company

### On-Cycle Meter Readings - Electric Division: 1998 - 2000

Month / Year	Total Meters	# Estimated	# Actual	% On-Cycle
January-98	25,231	4,467	20,764	82.3%
February-98	25,221	3,344	21,877	86.7%
March-98	25,210	2,129	23,081	91.6%
April-98	25,171	1,538	23,633	93.9%
May-98	25,105	1,595	23,510	93.6%
June-98	25,099	2,012	23,087	92.0%
July-98	25,121	3,457	21,664	86.2%
August-98	25,150	3,053	22,097	87.9%
September-98	25,164	2,720	22,444	89.2%
October-98	25,169	1,586	23,583	93.7%
November-98	25,153	2,870	22,283	88.6%
December-98	25,177	3,672	21,505	85.4%
<b>Total 1998</b>	<b>301,971</b>	<b>32,443</b>	<b>269,528</b>	<b>89.3%</b>

Month / Year	Total Meters	# Estimated	# Actual	% On-Cycle
January-99	25,334	4,660	20,674	81.6%
February-99	25,379	2,277	23,102	91.0%
March-99	25,353	1,372	23,981	94.6%
April-99	23,942	1,381	22,561	94.2%
May-99	25,357	1,331	24,026	94.8%
June-99	25,247	762	24,485	97.0%
July-99	25,303	618	24,685	97.6%
August-99	25,341	660	24,681	97.4%
September-99	25,338	501	24,837	98.0%
October-99	24,877	415	24,462	98.3%
November-99	24,871	520	24,351	97.9%
December-99	25,449	1,021	24,428	96.0%
<b>Total 1999</b>	<b>301,791</b>	<b>15,518</b>	<b>286,273</b>	<b>94.9%</b>

Month / Year	Total Meters	# Estimated	# Actual	% On-Cycle
January-00	25,532	3,913	21,619	84.7%
February-00	25,621	2,037	23,584	92.0%
March-00	25,634	1,286	24,348	95.0%
April-00	25,666	1,299	24,367	94.9%
May-00	25,551	1,473	24,078	94.2%
June-00	25,517	1,153	24,364	95.5%
July-00	25,567	1,175	24,392	95.4%
August-00	25,592	985	24,607	96.2%
September-00	25,620	951	24,669	96.3%
October-00	25,623	984	24,639	96.2%
November-00	25,728	889	24,839	96.5%
December-00	25,819	2,510	23,309	90.3%
<b>Total 2000</b>	<b>307,470</b>	<b>18,655</b>	<b>288,815</b>	<b>93.9%</b>

## Fitchburg Gas and Electric Light Company

### On-Cycle Meter Readings - Gas Division: 1998 - 2000

Month / Year	Total Meters	# Estimated	# Actual	% On-Cycle
January-98	14,444	2,849	11,595	80.3%
February-98	14,423	2,326	12,097	83.9%
March-98	14,413	2,128	12,285	85.2%
April-98	14,367	1,730	12,637	88.0%
May-98	14,266	1,789	12,477	87.5%
June-98	14,242	1,867	12,375	86.9%
July-98	14,198	2,885	11,313	79.7%
August-98	14,197	3,177	11,020	77.6%
September-98	14,161	2,128	12,033	85.0%
October-98	14,188	1,709	12,479	88.0%
November-98	14,199	2,597	11,602	81.7%
December-98	14,240	2,990	11,250	79.0%
<b>Total 1998</b>	<b>171,338</b>	<b>28,175</b>	<b>143,163</b>	<b>83.6%</b>

Month / Year	Total Meters	# Estimated	# Actual	% On-Cycle
January-99	14,151	3,568	10,583	74.8%
February-99	14,436	2,482	11,954	82.8%
March-99	14,400	1,639	12,761	88.6%
April-99	13,007	1,364	11,643	89.5%
May-99	14,333	1,417	12,916	90.1%
June-99	14,172	976	13,196	93.1%
July-99	14,168	733	13,435	94.8%
August-99	14,178	869	13,309	93.9%
September-99	14,221	691	13,530	95.1%
October-99	13,654	539	13,115	96.1%
November-99	13,592	734	12,858	94.6%
December-99	14,385	878	13,507	93.9%
<b>Total 1999</b>	<b>168,697</b>	<b>15,890</b>	<b>152,807</b>	<b>90.6%</b>

Month / Year	Total Meters	# Estimated	# Actual	% On-Cycle
January-00	14,309	2,181	12,128	84.8%
February-00	14,515	1,678	12,837	88.4%
March-00	14,512	1,328	13,184	90.8%
April-00	14,522	1,351	13,171	90.7%
May-00	14,392	1,323	13,069	90.8%
June-00	14,288	1,158	13,130	91.9%
July-00	14,265	1,123	13,142	92.1%
August-00	14,244	950	13,294	93.3%
September-00	14,275	1,041	13,234	92.7%
October-00	14,322	1,010	13,312	92.9%
November-00	14,454	982	13,472	93.2%
December-00	14,526	1,634	12,892	88.8%
<b>Total 2000</b>	<b>172,624</b>	<b>15,759</b>	<b>156,865</b>	<b>90.9%</b>

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MASS DTE CON DIV

007/007

# MONTHLY CASES 2000

8/1/2001

Company	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	TOTAL
<b>CABLE</b>														
Adelphia	1	3	2	16	14	10	6	8	6	11	10	1	7	88
Cablevision	15	6	6	5	9	10	1	8	6	4	10	3	7	83
Charlemon														
Charter	2	11	17	5	6	4	3	5	2	8	11	4	7	78
Cox														
Media One	79	70	41	51	59	78	84	51	64	63	83	66	66	789
RCN						2	1							
Time Warner	1	2			2	1	2					4	2	7
<b>Cable Total</b>	<b>98</b>	<b>92</b>	<b>66</b>	<b>77</b>	<b>90</b>	<b>105</b>	<b>97</b>	<b>73</b>	<b>79</b>	<b>86</b>	<b>115</b>	<b>79</b>	<b>88</b>	<b>1057</b>
<b>ELECTRIC</b>														
BE	31	32	20	23	32	106	72	63	59	66	53	31	49	588
CAMB	1		1		1		1				1		1	5
CE	15	9	14	16	31	15	14	26	16	26	25	38	20	245
EE	6	9	11	5	8	7	5	8	4	1	1		6	65
ME	27	42	34	48	53	105	89	78	83	85	72	37	63	753
NE						0				1			1	1
WME	11	12	23	21	27	23	22	24	25	24	13	7	19	232
MUN ELE	5		3	12	11	8	3	12	4	8	1	4	6	71
<b>Electric Total</b>	<b>96</b>	<b>104</b>	<b>106</b>	<b>125</b>	<b>163</b>	<b>264</b>	<b>206</b>	<b>211</b>	<b>191</b>	<b>211</b>	<b>166</b>	<b>117</b>	<b>163</b>	<b>1960</b>
<b>GAS</b>														
BSG	68	81	60	32	56	70	60	40	41	27	26	18	48	579
BKG	3	1	5	6	2	6	1	4	7	3	3	4	4	45
BLG			1		1									
BG	21	20	27	33	41	27	36	31	52	43	27	27	32	385
CGC	4	2	7	7	8	14	4	5	8	7	9	5	7	80
CGL	4	5	2	3	2	3	2	1	5	1		4	3	32
CG	10	17	10	9	22	17	20	15	10	13	15	9	14	167
ECG	2	2		2	4	6	1	2	1	6	2	2	3	30
FRG	3	3	6	5	8	11	1	5	6	13	6	7	6	74
FGE		4	2	9	10	10	8	2	7	7	2	2	6	63
MUN GAS				2		1	1		2		2		2	8
NAG				1										
OTG		1	1			1	1						1	1
<b>Gas Total</b>	<b>115</b>	<b>136</b>	<b>121</b>	<b>109</b>	<b>154</b>	<b>166</b>	<b>135</b>	<b>105</b>	<b>139</b>	<b>120</b>	<b>93</b>	<b>79</b>	<b>123</b>	<b>1472</b>
<b>WATER</b>														
Water		3	1		3	3								
<b>Water Total</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>15</b>
<b>OTHER</b>														
Other	3	5	3	3	4	1	3	1	6	3		7	4	39
<b>Other Total</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>4</b>	<b>39</b>
<b>SUPPLIERS</b>														
Supp.	5	3	6	8	6	6	1	4	5	6	1	2	4	53
<b>Supp. Total</b>	<b>5</b>	<b>3</b>	<b>6</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>53</b>

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MASS DTE CON DIV

002/002  
 10/18/2001

MONTHLY CASES 1999

Company	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mo. Avg.	TOTAL
<b>CABLE</b>														
Adelphia	1	1			2	1	2		1	1	3	2	2	14
Avalon	1	4	1	1	4	3	1	6	2	2			3	25
Cablevision	18	23	10	11	19	11	10	19	9	16	5	16	14	167
Century			1				1						1	2
Charter		1	2				1	1	1	2	2	11	3	21
Cox	1	1			1	2	1					1	1	6
CVI-Time Warner	1													2
FrontierVision	2	1	5	1	3	5	2	7	3	2			3	31
Greater Media	1	5	4	6	4	4	2	3	1	1			3	31
Harron							1		1				1	2
Media One	50	43	37	28	28	43	32	34	53	53	53	114	47	568
RCN	1	2			1			1	2	1	2		1	10
Time Warner	10	5	9	3	5	7	3	2	4				5	48
<b>Cable Total</b>	<b>86</b>	<b>86</b>	<b>69</b>	<b>50</b>	<b>67</b>	<b>76</b>	<b>56</b>	<b>73</b>	<b>77</b>	<b>78</b>	<b>65</b>	<b>144</b>	<b>77</b>	<b>927</b>
<b>ELECTRIC</b>														
BE	33	25	60	73	67	53	59	57	58	73	50	28	53	636
CAMB	1	1					1	1				2	1	6
CE	14	13	25	38	34	24	31	30	27	24	20	9	24	289
EE	3	2	6	14	15	6	7	7	12	9	6	4	8	91
ME	36	42	60	74	71	63	82	90	75	63	52	44	63	752
NE					1		1	1					1	3
WME	12	17	13	36	40	34	23	23	24	28	18	18	24	288
MUN ELE	9	12	6	15	18	8	3	6	4	7		2	8	90
<b>Electric Total</b>	<b>108</b>	<b>112</b>	<b>170</b>	<b>250</b>	<b>246</b>	<b>188</b>	<b>209</b>	<b>215</b>	<b>200</b>	<b>204</b>	<b>146</b>	<b>107</b>	<b>180</b>	<b>2155</b>
<b>GAS</b>														
BSG	37	49	27	42	49	46	21	21	27	37	35	83	40	474
BKG	3	10	3	4	4	7	7	7	10	13	3	5	6	76
BLG				1									1	1
BG	22	28	36	37	31	27	39	26	33	34	27	24	31	366
CGC	5	10	11	9	9	4	3	4	3	2	4	1	5	65
CGL	2	6	3	9	7	4	2	4		6	3	3	5	51
CG	22	20	20	24	39	15	17	20	22	23	23	9	21	256
ECG		3	2	2		3		2	3		1	1	2	19
FRG	5	3	6	6	12	7	3	7	6	8	8	1	6	72
FGE	3	6	3	12	9	7	5	3	13	8	2	7	7	78
MUN GAS	2			1	1	1		2	1	1			1	9
NAG			1			2							2	3
OTG	5	1	4	1				1		1		1	2	14
<b>Gas Total</b>	<b>106</b>	<b>138</b>	<b>116</b>	<b>148</b>	<b>161</b>	<b>123</b>	<b>97</b>	<b>97</b>	<b>120</b>	<b>135</b>	<b>108</b>	<b>135</b>	<b>124</b>	<b>1484</b>
<b>WATER</b>														
WATER	3		1	1	2	7	1	2	7	2	3	1	3	30
<b>Water Total</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>30</b>
<b>OTHER</b>														
OTHER	1	4	2	3	9	5	2	5	9	2	4	8	5	54
<b>Other Total</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>9</b>	<b>5</b>	<b>2</b>	<b>5</b>	<b>9</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>5</b>	<b>54</b>
<b>SUPPLIERS</b>														
SUPPLIERS	1	5	5	2	3	2	2	3	2	1	4	4	3	34
<b>Supp. Total</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>34</b>

DATE SPAN: 11/98 12/31/98												08/02/01												16:35												06174782591												MASS DTE CON DIV												0008/014																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 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ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 ADV	000 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## Crosstab Report - Consumer Database

ATESPAN: 1/1/96 12/31/96

08/02/01

**16:34**

**☎8174782591**

MASS DTE CON DIV

0008/014

[illegible]



06/02/01 18:33

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MASS DTE CON DIV

004/014

Page 7

CONSUMER DATABASE SYSTEM ISSUE REPORT

7/24/95  
2:35 pm

Database: Cases & Referrals

COMPANY:	TYPE	REF	DENY	RATE	MISC	QUAL	BILL	CREDIT	SAN CODE	RES	ADV	EST	METER	COMP	PO	ERROR	SUBTOTAL CASES & INQUI
COMPANY: BOSTON GAS	CO	0	12	46	54	75	634	276	7	19	0	68	26	1	1	20	1239
	RF	3090	17	78	92	30	224	307	28	66	0	40	31	14	1	124	4142
																	5381
COMPANY: BERKSHIRE GAS	CO	0	6	3	3	1	23	30	1	0	0	2	1	0	0	2	72
	RF	64	0	2	5	1	5	4	0	7	0	1	1	0	0	0	90
																	162
COMPANY: BLACKSTONE GAS	CO	2	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4
	RF																4
COMPANY: BAYSTATE GAS	CO	0	7	10	23	15	147	201	2	10	0	14	10	0	0	6	443
	RF	352	7	13	24	6	54	74	3	24	0	8	17	0	0	20	582
																	1025
COMPANY: COMMONWEALTH GAS	CO	0	1	2	21	13	65	111	3	4	0	8	5	0	0	0	233
	RF	379	2	8	19	5	20	60	2	12	0	1	4	2	0	8	522
																	755
COMPANY: COLONIAL GAS CAPE	CO	0	2	3	11	7	17	31	0	1	0	3	3	0	0	0	78
	RF	137	0	4	11	3	8	15	0	2	0	1	1	1	0	5	188
																	266
COMPANY: COLONIAL GAS LOWELL	CO	0	9	3	6	12	26	58	0	1	0	8	2	0	0	2	129
	RF	97	2	9	10	2	14	22	2	5	0	3	3	3	0	3	175
																	304
COMPANY: ESSEX COUNTY GAS	CO	0	5	7	7	5	22	12	0	1	0	1	1	0	0	1	42
	RF	57	0	4	6	1	6	14	0	2	0	1	1	0	0	3	95
																	157
COMPANY: FITCHBURG GAS & ELECTRIC	CO	0	1	1	5	0	14	22	5	3	0	1	1	1	1	1	56
	RF	10	0	1	3	1	3	10	2	2	0	2	0	0	0	3	46

08/02/01 16:32

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MASS DTE CON DIV

002/014

Page 2

CONSUMER DATABASE SYSTEM ISSUE REPORT

01/15 am

1/01/93 - 12/31/93 Database: Cases & Referrals

COMPANY DESCRIPTION	DENY	SLAM	RATE	MISC	QUAL	BILL	CREDIT	SAN	REQ	ADV	EST	900	METER	IDS	COMM	PO	REF	OCC	CASES & INQUI	SUBTOTAL
BOSTON GAS	C	21	0	22	68	561	311	7	18	0	115	0	23	0	0	4	0	0	1217	
BOSTON GAS	R	7	0	70	79	260	239	20	52	0	155	0	32	0	6	0	2043	0	3085	
BENKINS GAS	C	0	0	2	3	11	20	0	0	0	2	0	0	0	0	0	0	0	4302	
BENKINS GAS	R	0	0	6	6	1	9	1	1	0	0	0	1	0	0	0	43	0	41	
BLACKSTONE GAS	C	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	109	
BLACKSTONE GAS	R	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3	0	2	
BAYSTATE GAS	C	14	0	12	30	135	169	4	14	0	21	0	13	0	1	1	0	0	432	
BAYSTATE GAS	R	5	0	28	25	28	72	8	24	0	19	0	17	0	6	0	317	0	558	
COMMONWEALTH GAS	C	7	0	3	17	56	77	3	6	0	5	0	6	0	1	0	0	0	990	
COMMONWEALTH GAS	R	1	0	5	22	24	52	3	8	0	4	0	6	0	1	0	283	0	188	
COLONIAL GAS CAPE	C	10	0	6	1	16	31	0	3	0	2	0	1	0	0	0	0	0	417	
COLONIAL GAS CAPE	R	2	0	15	5	2	8	1	3	0	5	0	0	0	0	0	66	0	685	
COLONIAL GAS LOWELL	C	4	0	16	8	30	89	0	5	0	10	0	3	0	0	0	0	0	171	
COLONIAL GAS LOWELL	R	2	0	64	7	14	37	2	11	0	6	0	4	0	0	0	94	0	267	
ESSEX COUNTY GAS	C	5	0	8	5	22	17	0	3	0	1	0	2	0	0	0	0	0	418	
ESSEX COUNTY GAS	R	3	0	4	2	4	8	1	5	0	1	0	0	0	0	0	54	0	82	
FITCHBURG GAS & ELECTRIC	C	2	0	0	3	5	12	0	2	0	0	0	2	0	1	0	0	0	149	
FITCHBURG GAS & ELECTRIC	R	1	0	4	1	0	10	0	3	0	2	0	1	0	0	0	16	0	28	
FALL RIVER GAS	C	3	0	0	3	5	14	0	2	0	1	0	0	0	0	0	0	0	38	
FALL RIVER GAS	R	0	0	1	2	0	10	0	3	0	1	0	0	0	2	0	37	0	66	

# Fitchburg Gas and Electric Light Company

Billing Adjustments - Electric & Gas Divisions: 1994 - 2000							
	Average	2000	1999	1998	1997	1996	1995
Electric	\$376.72	\$0.00	\$0.00	\$130.00	\$0.00	\$0.00	\$2,507.06
Per 1,000 Customers (based on 23,100)	\$16.31	\$0.00	\$0.00	\$5.63	\$0.00	\$0.00	\$108.53
Gas	\$677.00	\$331.00	\$961.00	\$3,447.00	\$0.00	\$0.00	\$0.00
Per 1,000 Customers (based on 13,500)	\$50.15	\$24.52	\$71.19	\$255.33	\$0.00	\$0.00	\$0.00

CONSUMER DIVISION ADJUSTMENTS - 2000

Company	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOT
Adelphia				4.00	50.00	143.68		80.77			82.92		36
Cablevision			74.94			6.79	3.59			494.13	214.00	22.37	816
Charter		29.95	18.55	221.13	350.00						37.90		657
Cox									3.70				2
Media One	599.37	130.01	509.77	370.62	1,139.98	734.62	1,506.50	806.45	937.97	511.23	1,820.78	492.13	9,559
RCN Cable						134.29	90.45				201.90		426
Total	599.37	159.96	603.26	595.75	1,540.99	1,021.38	1,600.54	887.22	941.67	1,005.36	2,357.50	514.50	12,254
BE	8,296.72	4,773.36	3,356.44	946.22	928.46	603.34	4,154.79	14,900.04	6,184.04	24,257.99	2,939.97	1,551.67	72,893
CAMB													0
CE	6.00									2.66		25.00	33
EB		366.05	407.45	565.52	11.43		215.00	710.57	1,268.68			256.99	3,801
FGE													0
MB	695.83	1,911.55	13,017.21		1,406.48	11,344.34	3,081.90	1,993.85	457.28	1,282.05		504.00	35,694
NE													0
WMB			624.48		155.30		326.71						0
Mun. Elec.				42.38	26.25				520.00	341.35	129.91	1,041.36	3,139
Total	8,998.55	7,050.96	17,405.58	1,554.12	2,527.92	11,947.68	7,778.40	17,604.46	8,430.00	25,884.05	3,069.88	3,379.02	115,630
BG	137.76	2,203.10	62.31	2,864.30	487.15	1,743.10	2,137.18	232.87	767.95	588.83	61.22		11,285
BKG		877.72		33.97								256.08	1,467
BSG	337.69	2,990.51	2,717.73	5,303.69	4,478.33	7,879.00	1,849.70	10,697.97	2,778.87	8,662.38	1,400.00	7,037.46	56,133
CG		132.31	422.25	47.00		60.66	157.29	164.09					983
CGC			181.21	350.00	716.89	386.81	128.63		949.49	403.76	915.23	846.86	4,378
CGL	591.79	552.88		1,309.78	5.65	385.02			1,077.28				3,922
BCG		31.92		106.28			367.40		37,000.00	18.17			37,000
FOE										331.20			331
FRG		942.93	99.74			393.91				974.11	115.79		3,400
Mun. Gas					55.00								55
Total	1,067.24	7,731.37	3,483.24	10,015.02	5,743.02	10,848.50	4,640.20	11,094.93	42,573.59	10,978.45	2,492.24	8,140.40	118,808
AllEnergy													
Servi-Sense				46.72	214.17			47.06	89.95				210
Utility com										153.80			551
TOTAL				46.72	214.17			47.06	89.95	25.00			25
WATER**		70.00											786
TOTAL		70.00				1,387.47			123.43				1,580
Advantage			57.06										57
Vigilance	439.80			190.25	259.92	577.11	908.37	1,069.19			390.59		3,385
UnivTelNet				33.95			399.08		92.35				941
UnivTelNet		93.76											127
ITT	5,766.40	8,463.17	15,941.22	17,204.68	19,246.15	12,999.69	13,220.61	43,822.86	9,699.48	14,333.39	19,418.80	17,101.56	197,218
TELL ATL	1,543.52	1,265.08	1,592.96	2,566.05	8,880.71	4,070.37	4,171.84	5,607.81	11,450.54	4,340.76			1,004

005/007

DTE CON DIV

MASS

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<b>WATER**</b>	
<b>TOTAL</b>	

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1/MASS DTE CON DIV

013/014

**CONSUMER DIVISION ADJUSTMENTS - 1998**

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Consumer Division Adjustments - 1997

BE	11,597.86	1,788.03	19,815.98	7,859.14	7,281.60	1,217.69	6,211.53	11,811.45	1,518.23	28,209.72	16,786.46	9,312.51	147,571.44
CE	808.49		433.48		140.69	411.18	178.04	10,637.84	17.73	14,666.63			886.49
EE	147.80	1,191.86		114.30		741.96	8,976.93		150.00		400.36	216.07	32,483.76
FE													11,578.33
GE	754.21												8148
HE	211.40		410.00	1,474.81	1,257.76	533.07	598.49	1,480.73	1,244.72	213.83	158.34	1,038.40	10,462.34
IE	211.51	1,318.74	614.00										835.40
JE													4,456.16
KE													835.40
LE													4,456.16
ME													835.40
NE													835.40
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CONSUMER / REPORTS / ADJUSTING / ADJUSTED / ADJUSTED ADJUSTMENTS

## CONSUMER DIVISION ADJUSTMENTS - 1996

Category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
BE	5,074.02	10,519.72	4,632.59	2,911.71	19,794.07	3,508.17	6,100.87	22,596.65	10,297.40	1,437.79	1,839.88	7,978.90	96,691.77
CAMB											414.22		414.22
CE		1,449.27	751.19							139.04	1,035.52	743.50	4,118.52
EE	275.02	1,257.09	1,228.42	323.49	224.63	402.10	99.01	411.04	583.41		18.05	647.24	5,469.59
FGE													0.00
ME	403.24	1,043.24	1,843.11	1,329.11	2,221.15	186.40	2,179.58	789.98	642.82	1,512.84		148.82	12,300.29
NE	1,407.15												1,407.15
WNE	204.42	3,882.33	747.85	1,517.67	83.46	2,322.59	2,072.03	255.41	4,584.36		467.56	919.00	17,056.68
Mun. Elec.							675.86						675.86
Total	7,363.85	18,151.65	9,203.16	6,081.98	22,323.31	6,419.26	11,127.35	24,053.08	16,107.99	3,089.67	3,775.23	10,437.46	138,133.99

BG	3,082.73	4,664.56	8,216.10	3,024.94	7,297.43	1,824.14	4,821.40	1,302.11	1,051.67	5,641.17	3,951.62	5,477.38	50,355.25
BKG					250.00	219.15	215.00						684.15
BLG													0.00
BGG	568.97		1,205.69	3,455.42	395.38	1,622.68		169.00	305.00	258.71	218.53	50.00	8,249.38
CG	575.30	99.92	135.01	163.50	78.96			40.51	1,429.85				2,517.85
CGC		95.62	70.00	1,228.71	85.00	312.55		182.13					1,974.81
CGL	1,571.62	663.38	7,964.99	401.09	3,211.45	345.12	717.12		152.14	480.54	670.01	219.44	16,396.90
BCG	26.30	181.10	1,302.94	102.56	182.96	102.51						96.04	1,994.41
FRG		62.80			515.69		57.25		720.00				1,355.74
NAG									102.80				102.80
Mun. Gas													0.00
Total	5,824.92	5,761.38	18,894.73	8,376.22	12,016.87	4,426.15	5,810.77	1,693.75	3,761.46	6,380.42	4,840.16	5,842.86	83,629.69

WATER**													3,456.00
Total													3,456.00
ATT	37.50	218.38	696.71		315.00	594.45	63.84	121.97	458.57				2,506.42
AOS													0.00
COCOT													0.00
INF													0.00
INT	45.81	131.82											177.63
ITI													0.00
LDC				6.47	696.84			70.48					773.79
MCI	1,690.67	408.15		954.88	1,056.05	692.00	97.79		526.08	546.01	628.88		6,600.51
NYNEX	2,361.01	7,114.29	3,991.95	4,518.26	1,180.57	4,899.33	1,796.11	1,535.33	833.45	905.36	432.23	850.83	30,418.72
OTT	154.37		32.53	223.37	9.72	246.19	195.50	50.54	284.00	904.88		62.64	2,163.74
PILGRIM						252.00			127.72				379.72
SPR					237.96				2.93				240.89
ZERO +	69.75		46.31										116.06
Total	4,359.11	7,872.64	4,767.50	5,702.98	3,496.14	6,683.97	2,153.24	1,778.32	2,232.75	2,356.25	1,061.11	913.47	43,377.48
TOTAL	17,547.88	31,785.67	32,865.39	28,161.18	37,836.32	17,529.38	19,091.36	27,525.15	22,102.20	11,826.34	9,676.50	20,649.79	268,597.16

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CONSUMER DIVISION ADJUSTMENTS - 1995

Company	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
BE	3,957.84	5,043.08	20,937.03	2,254.89	14,325.40	11,434.76	7,929.21	22,327.41	18,766.96	41,263.98	30,729.30	16,165.89	195,135.75
CAMB			821.01							1,620.55			821.01
CE	1,507.84	403.75	255.65	41.35	960.21	398.93					166.75	160.61	5,207.12
EE	263.31		238.28		45.98		289.15	2,523.64	101.10				3,788.82
FGE													0.00
MB	7,805.99	1,478.29	175.13	1,122.46	2,397.03	3,544.29	696.07	977.16	1,664.87	1,305.18	2,010.90	2,743.90	25,921.27
NE													0.00
WMB	933.78	319.10	328.00	226.88		151.03	662.38	859.37	435.44	1,558.95	1,285.31	41.20	6,801.44
BG	2,186.27	3,068.88	4,635.04	13,664.51	20,259.13	7,588.87	1,066.82	3,734.09	3,667.79	9,683.54	4,543.19	701.46	74,799.59
BKG			0.66		1,400.47	6,206.36				101.55			7,709.04
BLG													0.00
BSG	950.62	1,559.64	1,126.05	2,001.55	1,939.47	2,621.70	1,250.53	1,349.03	66.00	241.37	1,864.93	1,199.36	16,170.25
CG	1,312.88	540.86	580.00	183.50	387.09	111.33	653.13	63.95	286.69	164.00	4,966.79		8,720.22
CGC	35.00	144.00	18.19		300.00	233.66	308.60	60.00	413.79	182.00			1,695.24
COL	697.78			1,176.31	1,165.25	460.51	25.00	104.42	1,538.46	1,515.11		167.78	6,850.62
ECG		169.23		124.25		288.85							582.33
HOG								426.13					426.13
FRG	25.00			318.97			32.00			325.09			701.06
MUNI *			1,074.44	32.67			480.52		1,104.37	3,132.06			5,824.06
WATER**	59.20							80.00		161.02			300.22
ATT	1,764.72	531.05	875.93	1,905.95	1,291.65	1,912.63	582.13	1,293.38	1,120.39	40.20	356.06	991.64	12,685.73
AOS		19.51				47.89		17.59			480.08		565.87
COCOT							0.75						0.75
INF							63.19						63.19
INT						449.49				181.63	93.60	162.00	886.72
ITT		8.00											8.00
LDC		1.11	123.89	2,146.06	15.96	51.71			168.32	129.60		141.54	2,778.19
MCI		3,764.76	146.56	405.94			534.45	2,186.05	42.85	1,453.22	251.49	373.56	9,158.88
NYNEX	19,126.63	3,916.25	2,411.80	848.99	876.03	593.23	5,325.20	3,891.11	6,206.66	6,121.82	2,162.79	1,194.88	29,632.51
OFT	910.94	442.79	54.96		60.39	270.15		924.07	603.30	1,224.00	209.28	122.90	4,822.78
SPR					47.39		3.00	117.24					167.63
ZERO+								12.90				15.77	28.67
TOTAL	41,557.80	21,410.30	33,272.62	26,464.28	45,471.45	36,368.39	19,902.13	48,566.38	36,186.99	78,404.87	48,120.67	24,182.49	422,252.29

\*Muni = March - West Boylston  
April - South Hadley  
July - Merrimac  
Sept. - North Attleboro  
Oct. - Chicopee = 296.50  
- Norwood = 39.68  
- Reading = 2,714.88  
- Taunton = 108.00

\*\*Water = Jan. - Mass. American Water  
August - Barnstable Water Supply  
Oct. - Mass. American Water

OCT. Adj for BECO - \$7.66 Layton case

08/31/1999

# CONSUMER DIVISION ADJUSTMENTS - 1994

Company	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
BE	13,862.44	6,264.66	4,788.69	5,554.42	11,524.73	37,382.10	2,976.87	42,264.28	16,116.91	23,093.85	6,832.40	3,225.91	173,837.35
CAMB													0.00
CE		1,762.03	607.69	775.24	289.46	545.08	1,365.81	15.36		1,491.24	327.85	268.96	7,448.72
EE		503.32							904.71			362.07	1,770.10
FGE			1,500.00				1,007.06						2,507.06
ME	861.87	785.62	700.34	3,136.80	638.28	5,171.99	7,920.52	2,541.87	4,107.73	5,277.18	3,014.89	2,758.10	36,915.19
NE													0.00
WME	730.38			367.61	725.32		892.83	514.60	1,224.88	614.39	402.12	353.62	5,825.75

BG	7,386.44	18,031.67	20,936.93	90,238.26	15,093.28	38,555.32	10,490.73	30,209.39	18,581.95	4,569.69	17,667.83	7,762.63	279,527.12
BEG	6,060.33	105.98	206.10			493.73	521.00			162.05			7,348.19
BLG													0.00
BNG	1,532.87	3,052.50	1,604.40	5,532.87	1,215.11	722.33	1,200.95	1,387.59	5,583.72	1,858.92	288.12	1,382.77	25,382.15
CG	59.15	283.74	278.17	296.32	1,557.83	646.58	165.23	256.53	2,288.34	1,602.25	869.08		8,363.22
CDC		76.62				298.12	13.00	70.72		99.01	147.01		764.48
CGL	69.06		352.33		2,099.53	706.80		133.54			194.46	929.85	4,985.57
BCG	607.59		93.88		12.00								713.47
NAG													0.00
PRG	302.83	328.00		1,400.54						354.46	776.39		3,162.22

MUNIC *			1,563.83			44.12				300.00	3.99	73.28	1,985.22
WATER		411.26		95.42		13.49	50.97						571.14
NYNEX	433.52	244.93	902.75	1,245.26	857.22	7,544.48	1,270.15	2,988.63	1,554.17	2,259.12	1,622.35	1,844.87	22,788.45
ATT	3,537.43	2,808.30	1,062.98	682.87	1,208.79	8,422.71	1,61.81	1,248.18	421.92	9,623.14	434.73	554.56	30,167.42
OTH						280.26	35.03	557.09	75.60	44.21	243.36	180.14	1,415.69
MCI	220.45		2.22	241.00	353.02	312.95	389.70		1,238.00	777.60	2,070.52	141.18	5,746.64
NYNEX-YPA				82.50									82.50
COCOT				0.25			2.00						2.25
LDC			219.76			34.48	164.45				639.44	6,958.64	8,016.77
AOS			9.05			73.55					4.67		87.27
PLGRIM					16.00			18.01					34.01
INT	247.10	51.20	95.00				52.24	189.03			103.34	518.73	1,256.64
INF						482.96	1,179.06	591.15	1,616.96	787.16			4,657.29
ITI							384.33					18.34	402.67
VPS										154.00			154.00
ZEROPLUS										29.93			32.84
MISC		60.70	27.03	709.57	116.69								913.99
TOTAL	35,931.46	34,770.53	34,974.15	108,958.39	35,787.26	103,131.59	29,996.65	83,805.97	54,014.89	51,100.93	36,458.10	25,276.46	636,326.38

Municipals:

MARCH- Chicopee \$ 65.00  
 Peabody \$1,498.83  
 JUNE- Hull \$ 44.12  
 SEPT.- Belmont \$ 300.00  
 OCT.- Wellesley \$ 3.99  
 NOV.- Chicopee \$ 73.28

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# Fitchburg Gas and Electric Light Company

SAIDI and SAIFI: 1996-2000

	TOTALS <sup>1</sup>		Customer Equipment Outages <sup>2</sup>		Planned Outages <sup>3</sup>		Exclude Major Events <sup>4</sup>		Secondary/Service Outages <sup>5</sup>		TOTALS With Adjusted Criteria <sup>6</sup>	
	SAIDI by Year (min.)	SAIFI by Year (min.)	SAIDI by Year (min.)	SAIFI by Year (min.)	SAIDI by Year (min.)	SAIFI by Year (min.)	SAIDI by Year (min.)	SAIFI by Year (min.)	SAIDI by Year (min.)	SAIFI by Year (min.)	SAIDI by Year (min.)	SAIFI by Year (min.)
1996	1,124.24	3.595	0.01	0.008	1.33	0.068	938.94	1.723	0.27	0.002	124.70	1.782
1997	202.12	2.879	0.02	0.008	0.77	0.065	61.51	0.911	0.37	0.004	139.45	1.596
1998	186.16	1.904	5.22	0.013	0.34	0.007	64.00	0.540	0.51	0.004	116.09	1.341
1999	263.97	3.161	0.51	0.008	3.20	0.059	99.20	1.592	0.67	0.006	168.88	2.003
2000	325.44	2.423	0.65	0.001	0.08	0.000	208.41	1.057	0.33	0.003	116.56	1.362
TOTALS:	2,102.93	13.961	5.31	0.014	5.72	0.220	1,432.06	5.323	2.14	0.020	657.69	8.324

<sup>1</sup> Includes all reliability data for 1996-2000.

<sup>2</sup> As defined by the D.T.E. 99-84 Order, Attachment 1, page 7, Section V., part A.

<sup>3</sup> As defined by the D.T.E. 99-84 Order, Attachment 1, page 7, Section V., part B.

<sup>4</sup> As defined by the D.T.E. 99-84 Order, Attachment 1, page 8, Section V., part C.

<sup>5</sup> As defined by the D.T.E. 99-84 Order, Attachment 1, page 8, Section V., part G.

<sup>6</sup> Equals TOTALS minus D.T.E. assumptions for calculating electric reliability measures.

# Fitchburg Gas and Electric Light Company

## Response to Odor Calls: 2000

	January		February		March		April		May		June	
	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls
00-15 Minutes	40	63.49%	45	63.38%	46	63.01%	41	69.49%	46	65.71%	56	70.89%
16-30 Minutes	17	26.98%	18	25.35%	24	32.88%	17	28.81%	14	20.00%	15	18.99%
31-45 Minutes	5	7.94%	7	9.86%	3	4.11%	1	1.69%	10	14.29%	6	7.59%
46-60 Minutes	1	1.59%	1	1.41%	0	0.00%	0	0.00%	0	0.00%	2	2.53%
Over 60 Minutes	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Total	63	100.00%	71	100.00%	73	100.00%	59	100.00%	70	100.00%	79	100.00%
% of Calls < 60 Minutes		100%		100%		100%		100%		100%		100%

	July		August		September		October		November		December		Annual	
	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls
00-15 Minutes	30	60.00%	62	65.96%	49	53.26%	40	39.22%	43	53.75%	44	61.11%	542	59.89%
16-30 Minutes	15	30.00%	20	21.28%	31	33.70%	29	28.43%	25	31.25%	12	16.67%	237	26.19%
31-45 Minutes	2	4.00%	11	11.70%	11	11.96%	16	15.69%	9	11.25%	13	18.06%	94	10.39%
46-60 Minutes	2	4.00%	1	1.06%	0	0.00%	12	11.76%	1	1.25%	3	4.17%	23	2.54%
Over 60 Minutes	1	2.00%	0	0.00%	1	1.09%	5	4.90%	2	2.50%	0	0.00%	9	0.99%
Total	50	100.00%	94	100.00%	92	100.00%	102	100.00%	80	100.00%	72	100.00%	905	100.00%
% of Calls < 60 Minutes		98%		100%		99%		95%		98%		100%		99%

# Fitchburg Gas and Electric Light Company

## Response to Odor Calls: 1999

	January		February		March		April		May		June	
	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls
00-15 Minutes	15	46.88%	15	51.72%	17	50.00%	17	68.00%	21	67.74%	6	50.00%
16-30 Minutes	12	37.50%	12	41.38%	13	38.24%	5	20.00%	9	29.03%	3	25.00%
31-45 Minutes	3	9.38%	4	3.45%	1	2.94%	3	12.00%	1	3.23%	2	16.67%
46-60 Minutes	1	3.13%	1	3.45%	2	5.88%	0	0.00%	0	0.00%	1	8.33%
Over 60 Minutes	1	3.13%	0	0.00%	1	2.94%	0	0.00%	0	0.00%	0	0.00%
Total	32	100.00%	29	100.00%	34	100.00%	25	100.00%	31	100.00%	12	100.00%
% of Calls < 60 Minutes		97%		100%		97%		100%		100%		100%

	July		August		September		October		November		December		Annual	
	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls
00-15 Minutes	14	51.85%	20	57.14%	58	69.05%	56	54.37%	51	64.56%	54	63.53%	344	59.72%
16-30 Minutes	8	29.63%	11	31.43%	18	21.43%	30	29.13%	13	16.46%	21	24.71%	155	26.91%
31-45 Minutes	4	14.81%	4	11.43%	5	5.95%	11	10.68%	11	13.92%	7	8.24%	53	9.20%
46-60 Minutes	1	3.70%	0	0.00%	3	3.57%	5	4.85%	2	2.53%	1	1.18%	17	2.95%
Over 60 Minutes	0	0.00%	0	0.00%	0	0.00%	1	0.97%	2	2.53%	2	2.35%	7	1.22%
Total	27	100.00%	35	100.00%	84	100.00%	103	100.00%	79	100.00%	85	100.00%	576	100.00%
% of Calls < 60 Minutes		100%		100%		100%		99%		97%		98%		99%

# Fitchburg Gas and Electric Light Company

## Response to Odor Calls: 1998

	January		February		March		April		May		June	
	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls
00-15 Minutes	17	48.57%	21	52.50%	14	41.18%	18	47.37%	15	53.57%	6	28.57%
16-30 Minutes	7	20.00%	14	35.00%	8	23.53%	15	39.47%	8	28.57%	10	47.62%
31-45 Minutes	7	20.00%	4	10.00%	6	17.65%	5	13.16%	4	14.29%	2	9.52%
46-60 Minutes	2	5.71%	1	2.50%	1	2.94%	0	0.00%	0	0.00%	3	14.29%
Over 60 Minutes	2	5.71%	0	0.00%	5	14.71%	0	0.00%	1	3.57%	0	0.00%
Total	35	100.00%	40	100.00%	34	100.00%	38	100.00%	28	100.00%	21	100.00%
% of Calls < 60 Minutes		94%		100%		85%		100%		96%		100%

	July		August		September		October		November		December		Annual	
	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls	# Calls	% Calls		
00-15 Minutes	9	40.91%	4	30.77%	7	43.75%	13	33.33%	28	66.67%	20	58.82%	172	47.51%
16-30 Minutes	10	45.45%	5	38.46%	6	37.50%	13	33.33%	9	21.43%	11	32.35%	116	32.04%
31-45 Minutes	3	13.64%	3	23.08%	2	12.50%	8	20.51%	3	7.14%	2	5.88%	49	13.54%
46-60 Minutes	0	0.00%	0	0.00%	1	6.25%	1	2.56%	1	2.38%	1	2.94%	11	3.04%
Over 60 Minutes	0	0.00%	1	7.69%	0	0.00%	4	10.26%	1	2.38%	0	0.00%	14	3.87%
Total	22	100.00%	13	100.00%	16	100.00%	39	100.00%	42	100.00%	34	100.00%	362	100.00%
% of Calls < 60 Minutes		100%		92%		100%		90%		98%		100%		96%



## Fitchburg Gas and Electric Light Company

### Lost Work-Time Accident Rate: 1991 - 2000

The Lost Time Accident Rate is the SQ measure for employee safety and represents the number of lost time injuries per 100 full-time employees and is calculated as follows:

$$\text{Incident Rate} = (N/EH) \times 200,000$$

where,

$N$  = number of lost time accidents

$EH$  = total hours worked by all employees during the calendar year

200000 = base for 100 equivalent full-time workers (working 40 hours per week, 50 weeks per year).

Year	Number of Hours Worked by All FG& Employees	Number of Lost Time Accidents	Lost Time Incident Rate
2000	188,108	7	7.44
1999	190,823	7	7.34
1998	202,883	12	11.83
1997	222,057	11	9.91
1996	243,074	17	13.99
1995	250,451	16	12.78
1994	257,552	14	10.87
1993	248,858	17	13.66
1992	264,499	7	5.29
1991	283,548	14	9.87